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No. 79-1429
(Consolidated with No. 79-1583)

IN THE
Supreme Court of the United States
OCTOBER TERM, 1980

AMERICAN TEXTILE MANUFACTURERS INSTITUTE, INC., MILLIKEN & COMPANY, ARKWRIGHT MILLS, SPARTAN MILLS, BLAIR MILLS, INC., HERMITAGE, INC., DAN RIVER, INC., CONE MILLS CORPORATION, MAYFAIR MILLS, SPRINGS MILLS, INC., RIEGEL TEXTILE CORPORATION, FIELDCREST MILLS, INC., AND WEST POINT-PEPPERELL, INC.,

Petitioners,

v.

RAY MARSHALL, SECRETARY OF LABOR, UNITED STATES DEPARTMENT OF LABOR, *et al.*,

Respondents.

On Writ of Certiorari to the United States Court of Appeals for the District of Columbia Circuit

BRIEF FOR PETITIONERS

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QUESTIONS PRESENTED FOR REVIEW

1. Whether Congress gave the Occupational Safety and Health Administration ("OSHA") the unprecedented power to set enormously costly occupational health standards in disregard of their economic impact, the sole limit being that the costs of a single standard must not be so great as to threaten the destruction of an entire industry.

2. Whether Congress intended to permit OSHA to adopt standards that consume enormous amounts of society's limited industrial hygiene resources without regard to whether such standards would produce any significant or discernible reduction in a risk of material health impairment.

3. Whether OSHA has the authority to require that employers transfer and guarantee the wages and benefits of workers who are not suffering from any occupationally-related health impairment.*

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* In addition to the parties listed in the caption of the case, the following were parties to the proceeding in the court below: the National Cotton Council; the Cotton Warehouse Association; the American Cotton Shippers Association; the National Cottonseed Products Association; the American Federation of Labor & Congress of Industrial Organizations; the Industrial Union Department, AFL-CIO; and the Amalgamated Clothing and Textile Workers Union. The American Textile Manufacturers Institute, Inc. is a trade associaiton consisting of approximately 175 companies.

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BRIEF FOR PETITIONERS

OPINION BELOW

The opinion of the United States Court of Appeals for the District of Columbia Circuit is reported at 617 F.2d 636 and is reprinted in the Appendix to the Petition for Certiorari ("Pet. App.") at 19. The challenged regulation and the statement of reasons accompanying it appear

at 43 Fed. Reg. 27350 (1978), as amended at 43 Fed. Reg. 28473 (1978), 43 Fed. Reg. 35032 (1978), and 43 Fed. Reg. 56892 (1978).

JURISDICTION

The court of appeals entered judgment on October 24, 1979. Petitioners filed a timely petition for rehearing on November 7, 1979, which the court below denied on January 11, 1980. Pet. App. at 103. Petitioners filed a timely petition for a writ of certiorari on March 14, 1980, invoking jurisdiction under 28 U.S.C. § 1254(1) and 29 U.S.C. § 660(a). This Court granted the petition by order dated October 6, 1980.

CONSTITUTIONAL AND STATUTORY PROVISIONS INVOLVED

Relevant sections of the United States Constitution and the Occupational Safety and Health Act of 1970, 29 U.S.C. §§ 651-78 (1976 & Supp. III 1979) (the "OSH Act" or "Act") are set forth in the Appendix to this Brief.

STATEMENT OF THE CASE

Petitioners, the American Textile Manufacturers Institute, Inc. ("ATMI") and twelve individual textile manufacturing companies, brought this action for judicial review of the Standard for Occupational Exposure to Cotton Dust (the "Cotton Dust Standard" or "Standard"), promulgated by the Occupational Safety and Health Administration ("OSHA") on June 19, 1978. 43 Fed. Reg. 27350 (1978), *as amended at id.* 28473, *id.* 35032, *id.* 56893. The Standard was promulgated pursuant to the OSH Act, Section 3(8) of which authorizes OSHA to adopt standards requiring "conditions, . . . practices, . . . operations or processes, reasonably necessary or ap-

propriate to provide safe or healthful employment and places of employment." 29 U.S.C. § 652(8). Section 6(b)(5) of the Act provides that

> in promulgating standards dealing with toxic materials or harmful physical agents . . . , [OSHA] shall set the standard which most adequately assures, to the extent feasible, on the basis of the best available evidence, that no employee will suffer material impairment of health or functional capacity . . . .

Id. § 655(b)(5).

OSHA adopted the Standard purportedly to protect workers in the textile manufacturing and other cotton handling industries from the risk of contracting byssinosis, a respiratory condition that has been associated with exposure to cotton dust. Petitioners agree that, subject to the requirements and limitations of the Act, textile workers should be protected against serious and disabling effects of byssinosis. The dispute in this case centers on whether OSHA's adoption of the Cotton Dust Standard conformed with the applicable statutory requirements and limitations—particularly as they relate to risk reduction and cost considerations. Petitioners believe that the Standard must be set aside because OSHA misapprehended the nature of the economic impact inquiry that the Act requires and imposed a wage guarantee obligation that has no statutory basis.

A. The Nature of Byssinosis

Cotton dust is not a carcinogen, and byssinosis, the health impairment to which the Cotton Dust Standard is addressed, is not a form of cancer. Unlike cancer, byssinosis can be detected in its early stages when it is

reversible and nondisabling.[1] In these respects, the Cotton Dust Standard differs from the Benzene Standard reviewed by this Court and from all of the other toxic substance standards that had been reviewed by the courts of appeals prior to the decision of the court below.[2]

The respiratory effects that characterize byssinosis have been categorized into four "grades" (½, 1, 2, and 3). 41 Fed. Reg. 56498, 56500-01 (1976). Grade ½ byssinosis is generally characterized by occasional chest tightness on Mondays; it is mild and reversible and disappears entirely upon removal from exposure.[3] Indeed, Grade ½ byssinosis cannot really be deemed a health impairment of any sort, since it involves essentially

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[1] The fact that byssinosis is not a malignant disease is also reflected by the fact that textile workers have not been found to exhibit an excess incidence of mortality as a result of their exposure to cotton dust. *See* Ex. 6, No. 76 at III-6. Citations to the record compiled by OSHA include references to exhibits ("Ex.") and transcript testimony ("Tr.").

[2] *See Industrial Union Dep't, AFL-CIO v. American Petroleum Inst.*, 48 U.S.L.W. 5022 (U.S. July 2, 1980) (Benzene Standard); *American Iron & Steel Inst. v. OSHA*, 577 F.2d 825 (3d Cir. 1978), *cert. granted*, 48 U.S.L.W. 3855 (U.S. July 2, 1980), *cert. dismissed*, 49 U.S.L.W. 3145 (U.S. Sept. 10, 1980) (Coke Oven Emissions Standard); *Society of the Plastics Indus., Inc. v. OSHA*, 509 F.2d 1301 (2d Cir.), *cert. denied*, 421 U.S. 992 (1975) (Vinyl Chloride Standard); *Synthetic Organic Chem. Mfrs. Ass'n v. Brennan*, 506 F.2d 385 (3d Cir. 1974), *cert. denied*, 423 U.S. 830 (1975) (standard for 14 carcinogenic chemicals); *Industrial Union Dep't, AFL-CIO v. Hodgson*, 499 F.2d 467 (D.C. Cir. 1974) (Asbestos Dust Standard); *Dry Color Mfrs. Ass'n v. Department of Labor*, 486 F.2d 98 (3d Cir. 1973) (standard for 14 carcinogenic chemicals).

[3] *See* 43 Fed. Reg. at 27354, col. 2; 41 Fed. Reg. at 56500, col. 3. Recent studies indicate that from 50-75% of those individuals reporting any symptoms of byssinosis at all are classified in Grade 1/2. Pet. App. at 117, 125, 129.

"nebulous, transient feelings";[4] a person exhibiting Grade ½ symptoms is not sick, impaired or disabled.[5]

Grade 1 byssinosis is characterized by chest tightness and/or breathlessness occurring only on Mondays after an absence from work of approximately two days. Grade 2 symptoms involve chest tightness and/or breathlessness on Mondays and other days. Like Grade ½, Grades 1 and 2 are generally considered to be reversible.[6]

Grade 3 byssinosis is characterized "by grade two symptoms accompanied by evidence of permanent incapacity from diminished effort tolerance and/or reduced ventilatory capacity." *Id.* Although respected medical opinion suggests that even Grade 3 byssinosis may be reversible,[7] other studies conclude that, in most cases, Grade 3 is not reversible. It is Grade 3 byssinosis—the advanced, chronic variety—that OSHA has described as being irreversible and disabling, constituting a form of chronic obstructive pulmonary disease. 43 Fed. Reg. at 27352.

In sum, the term "byssinosis" standing by itself is a very imprecise description of health conditions that vary from a mild, reversible, nondisabling symptom to what in some instances may become a chronic, often irreversible, and disabling disease. Although it is not known what component of cotton dust causes byssinosis, there is general agreement that some workers exposed to high enough concentrations of cotton dust will develop some symptoms

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[4] Ex. 41 (Dr. Russell Harley); *see also* Tr. 1447 (Dr. W.K.C. Morgan); Tr. 1515 (Dr. Russell Harley); Tr. 813-14 (Dr. El Batawi).

[5] Tr. 1779 (Dr. Charles F. Martin); Pet. App. at 157, 161 (Dr. Jack W. Whitworth).

[6] 41 Fed. Reg. at 56500; *Texas Independent Ginners Ass'n v. Marshall*, Nos. 78-2663, *et al.*, slip op. at 1212 (5th Cir. Nov. 14, 1980) (copies of this recent opinion have been lodged with the Court).

[7] Ex. 41 at 8 (Dr. Russell Harley).

of Grade ½ byssinosis and that, if exposure continues for long enough, the condition could progress, over time, to the more severe chronic and disabling stage. However, the overwhelming majority of persons exposed to cotton dust do not exhibit any symptoms of byssinosis at all even after long exposure,[8] and a worker who has developed the early mild symptoms of byssinosis will revert to a normal state if removed from exposure.[9]

At the time that Congress was considering the OSH Act in 1970, concern was expressed about the occurrence of the disabling form of byssinosis among workers in certain operations within the textile industry.[10] However, Congress did not indicate concern about the mild, reversible and nondisabling symptoms that characterize the lower grades of byssinosis. Moreover, the data before Congress in 1970 reflected experience with byssinosis during the early and mid-1960s when there were virtually no medical surveillance or other protective programs in effect. As discussed below, medical surveillance (accompanied by respirator use and selective employee transfer) is an effective means of reducing the incidence of the chronic and disabling form of byssinosis. Since no such programs were operative in the 1960s (when cotton dust exposures were almost certainly higher than at present),[11] experience from that period has very little

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[8] *See, e.g.*, Pet. App. at 123a, 125; *see also Texas Independent Ginners Ass'n v. Marshall*, Nos. 78-2663, *et al.*, slip op. at 1212.

[9] *See, e.g.*, 43 Fed. Reg. at 27354, col. 3.

[10] S. Rep. No. 91-1282, 91st Cong., 2d Sess. 3 (1970), *reprinted in* Senate Subcomm. on Labor of the Comm. on Labor and Pub. Welfare, 92d Cong., 1st Sess., Legislative History of the Occupational Safety and Health Act of 1970, at 143 (Comm. Print 1971) [hereinafter "Leg. Hist."].

[11] Until the latter part of the 1960s, neither the government nor any private standard-setting organization had placed a limit upon exposure to cotton dust. 43 Fed. Reg. at 27351, col. 1. As OSHA's witness, Dr. Arend Bouhuys, observed, byssinosis has

relevance to whether OSHA's Standard is necessary to prevent or reduce a significant health risk today.

B. The Proceedings Before OSHA

Within the textile manufacturing industry, cotton is handled in a series of successive operations, beginning with "opening" through "roving," [12] continuing with "spinning" through "warping," [13] and concluding in "slashing" and "weaving." [14]

Before 1971, no mandatory exposure limit was generally applicable to these operations, although a permissible exposure limit ("PEL") of 1.0 milligram of total cotton dust (raw) per cubic meter of air (1.0 mg/m^3) was established for federal contractors under the Walsh-Healey Act. 41 U.S.C. §§ 35-45 (1976 & Supp. III 1979). In 1971, OSHA adopted this limit as an established Federal standard under Section 6(a) of the Act, 29 U.S.C. § 655(a); consequently, the PEL of 1 mg/m^3 applied to all operations in the textile manufacturing industry. *See* 43 Fed. Reg. at 27351, col. 1. That standard, however, did not require medical surveillance.

In December 1976, OSHA published a proposal to revise the standard by reducing the PEL, in all segments of the cotton industry, to 0.2 mg/m^3 of cotton dust as measured by a vertical elutriator.[15] Testimony and

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been perceived as an important health hazard for United States cotton textile workers only since 1967. *See* Ex. 11 at 6.

[12] In the operations of "opening," "picking," "carding," "drawing," and "roving," raw cotton is cleaned and prepared for spinning into yarn.

[13] In the operations of "spinning," "twisting," "winding," "spooling," and "warping," the prepared cotton is transformed into yarn and packaged for weaving or other processing.

[14] In "slashing" and "weaving," the yarn is manufactured into a woven fabric.

[15] 41 Fed. Reg. 56498 (1976). For the operations of "opening," "picking," and "carding," there is some evidence that a limit of

written comments in the proceeding focused on the health need for the severe standard that OSHA had proposed, as well as on the standard's technological feasibility and the economic impact that it would have on the affected industries and the economy as a whole. What follows is a brief description of the principal evidence on health effects and economic impact.[16]

1. *Health Effects Evidence*

For its health effects determination, OSHA placed principal reliance upon the so-called "Merchant Study" concluded in April 1971.[17] Among textile workers not subject to a medical surveillance or respiratory protection program, Merchant claimed to have found that the predicted prevalence rate of byssinosis (for Grades ½, 1 and 2 on an undifferentiated basis) was approximately 7 percent at exposures of 0.1 mg/m³, 13 percent at exposures of 0.2 mg/m³ and 26 percent at exposures of 0.5 mg/m³ in the operations of opening through warping.[18] Although these findings were subject to serious ques-

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0.2 mg/m³ of *vertical elutriated* cotton dust may be approximately equivalent to a limit of 0.4 mg/m³ of *total* cotton dust. Tr. 2396-97 (Hovan Hocutt). No such correlation between "vertical elutriated" and "total" dust has been established for any other operations. *Id.*; Tr. 2022-25 (Dr. John Neefus).

[16] The question of the Standard's technological feasibility *per se* is not before the Court at this time, and need not be considered except to the extent that it relates to the economic impact of the Standard.

[17] *See* 43 Fed. Reg. at 27355; Exs. 38d, 6, Nos. 44 & 51,

[18] 43 Fed. Reg. at 27355; Ex. 6, No. 51, Table 4, Charts for Groups. The "prevalence rate" is intended to relate the *current* exposure levels to the percentage of employees with specified symptoms. It does not purport to show that the current exposures caused those symptoms. *See* Ex. 38d at 103; Ex. 26 at 2.

tion,[19] the significance of the findings, even when accepted at face value, is easily overstated.

First, the Merchant Study does not establish a dose-response relationship showing the percentage probability that workers exposed to specified levels of cotton dust will develop byssinosis.[20] Rather, as Merchant admitted, his study purported to show only the *prevalence* rate of byssinosis (Grades ½, 1 and 2) *at a particular time* among workers who already had reacted to unknown (and presumably higher) exposure levels in the past.[21] Second, more than 50 percent of those who indicated any symptoms of byssinosis at all in the Merchant Study were recorded as Grade ½.[22] Finally, since none of the workers in Merchant's study had participated in a medical surveillance program, Merchant's findings reveal nothing about how the prevalence of byssinosis (particularly the higher grades) would vary from one exposure level to another, if the various exposure limits were combined with a program of medical surveillance, respirator use, and employee transfer in appropriate cases. Thus, even taken at face value, the Merchant Study

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[19] The Merchant Study was shown to contain errors in data selection, methodology, and analysis that led to the prediction of "the highest possible value of predicted prevalence at any hypothesized dust level." *E.g.*, Ex. 55 at 2-9 (Dr. Moon W. Suh). Dr. Merchant himself testified:

> Clearly no inference from our study can be drawn as to the prevalence of byssinosis in the entire U.S. textile industry . . . .

Tr. 1032. Even OSHA admitted that there were "some weaknesses in the Merchant data . . . and, consequently, . . . weakness of some correlation coefficients." 43 Fed. Reg. at 27357, col. 3.

[20] *See* Ex. 38d at 103.

[21] Ex. 26 at 2.

[22] Ex. 6, No. 51, Table 4, Groups 3 & 6; Tr. 1162-63 (Dr. Merchant).

must be interpreted very cautiously; it cannot blithely be applied to circumstances that differ substantially from those studied by Merchant.

The Merchant Study cannot be taken at face value, however. Not only did it contain methodological flaws,[23] but also it was inconsistent with a number of more recent studies of larger worker populations, which indicated that the actual prevalence of byssinosis in the textile manufacturing industry was far below the levels suggested by Merchant.

For example, a 1976 study conducted by Dr. Hans Weill, an OSHA witness at the hearing, found that among workers who had participated in a medical surveillance program, the prevalence of byssinosis was markedly low at exposure levels above 0.2 mg/m^3 and that even at levels of 0.5 mg/m^3 and above, it was substantially lower than the rate reported by Merchant.[24] Dr. Weill's findings were consistent with those of Dr. W.K.C. Morgan, who found that only 0.4% of the workers whom he studied in 1976 (workers who also had been subject to medical surveillance) reported any symptoms of byssinosis—despite the fact that they were exposed to cotton dust levels ranging up to more than 1.0 mg/m^3.[25] Studies reported by individual textile companies were in accord with the Weill and Morgan findings.[26]

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[23] *See* note 19 *supra*.

[24] Ex. 13A at 14-15, 44-45; Tr. 294-95.

[25] Exs. 39, 39a, 40, 43, 47b.

[26] Thus, studies of more than 10,000 textile workers by Burlington Industries revealed a prevalence rate (Grades 1/2, 1 and 2) of 4.5% in 1971 and 1.0% in 1976. Pet. App. at 108, 172-75 (Drs. Harold R. Imbus & Moon W. Suh). A 1973 study of more than 9,000 West Point-Pepperell textile workers exposed to dust levels ranging from less than 0.2 mg/m^3 to more than 1.0 mg/m^3 showed that only 1.34% of the workers reported byssinosis symptoms of any grade, and that 70.7% of these were Grade 1/2, with only two

These studies are significant in several respects. For one thing, taken as a group, they provide persuasive evidence that the byssinosis prevalence findings reported in the Merchant Study overstate the predicted level of byssinosis among textile workers.[27] This point takes on added significance in light of the fact that these other studies are more recent, more extensive, and thus more indicative of the current state of affairs in the industry. More importantly, these studies demonstrated that a medical surveillance program (combined with the selective use of respirators and transfer of employees in appropriate cases) is an effective means to achieve a very significant reduction in the occurrence of byssinosis (particularly the more serious grades) among textile workers. Indeed, OSHA itself recognized this point. *See* 43 Fed. Reg. at 27359, col. 3.

2. *The ATMI Alternative*

Based upon this experience, ATMI and individual textile companies urged OSHA to consider and adopt an alternative to the OSHA proposal. The alternative proposed less stringent exposure limits than OSHA's standard, combined with an active and effective medical surveillance program that would identify employees having the mild reversible symptoms of byssinosis.[28] Such employees could then be protected against any risk of dis-

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workers (in the entire study population of more than 9,000) exhibiting Grade 2 symptoms. Pet. App. at 124-125, 157-161 (Dr. Jack W. Whitworth). Similarly, a 1973 study of more than 6,600 Cone Mills textile workers found that approximately 3% of the workers reported symptoms of Grades 1/2 and 1 (more than 70% of these being Grade 1/2), with no workers reporting symptoms of Grade 2 byssinosis. Pet. App. at 126-129 (Dr. Charles F. Martin).

[27] *See* Comments of the Council on Wage and Price Stability, Ex. 111 at 16-18.

[28] *See* Ex. 160 at 86-89.

abling or irreversible lung damage by selective use of respirators or transfer to low exposure areas, as medically appropriate for the individual concerned. On the basis of the experience that had accumulated since 1970, ATMI argued that this alternative would provide effective and cost-efficient protection for textile workers against any significant risk of material lung damage from exposure to cotton dust.

3. *Evidence on the Economic Impact of the Standard*

Two principal analyses addressed the issue of economic impact. One, the Hocutt-Thomas study, was presented by the principal suppliers of dust control equipment to the textile industry. It concluded that textile manufacturers would incur capital costs of $550 million to achieve *much less stringent exposure limits* than those established in OSHA's Standard. 43 Fed. Reg. at 27372, 27380.[29] The second economic analysis, prepared by OSHA's outside contractor, Research Triangle Institute ("RTI"), estimated that the textile industry would incur capital costs of $1.1 billion in 1974 dollars to achieve the Standard's exposure limit of 0.2 mg/m^3 in the operations of opening through warping alone.[30]

RTI expressed considerable concern about the ability of many textile firms to finance the capital expenditures that it estimated would be required to reach the PEL set by the standard. According to RTI,

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[29] The PELs for which the Hocutt-Thomas cost estimate was developed were 0.2 mg/m^3 in opening through roving, 0.5 mg/m^3 in spinning through warping, and 1.0 mg/m^3 in slashing and weaving. Pet. App. at 152-56.

[30] This consisted of $984.4 million in opening through spinning, *see* Pet. App. at 139; 43 Fed. Reg. at 27371, and $127.7 million in winding through warping, *see* Ex. 6, No. 76 at V-28. RTI estimated the total capital cost of the proposed standard for all industry segments to be $2.7 billion. Pet. App. at 139.

> unless the compliance capital investments are spread over a substantial number of years [RTI envisioned an eight-year period] all the companies engaged heavily in cotton yarn production will face severe difficulty in financing compliance capital for the 0.2 mg/m^3 exposure limits and the difficulty will be more intense for smaller companies.[31]

In RTI's view, implementation of the Standard would be difficult for many firms and would result in adjustments in the structure of the textile manufacturing industry.[32] Although RTI did not believe that the severe impact of the Standard would threaten the existence of the cotton textile industry as a whole, it reached this conclusion only by adopting (without any supporting analysis) what it characterized as the "extreme assumption" that the costs of the Standard could be passed on fully in product prices. Pet. App. at 144; 43 Fed. Reg. at 27370. RTI noted that if the opposite assumption of no price increases were made, all industry sectors would have "negative 'profits after taxes' " under a 0.2 mg/m^3 standard. Pet. App. at 143. Other witnesses echoed this concern about the ability of the industry to finance the required capital expenditures.[33]

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[31] Ex. 6, No. 76 at VI-48. These difficulties would be occasioned because, as RTI noted, profits in the textile industry have been low since the mid-1950s, averaging about one-half of the profit percentage for United States manufacturers as a whole. *Id.* at C-27. This poor profit performance, RTI observed, had led to a decline of nearly 37% in textile industry investment in plant and equipment between 1947 and 1974, a period in which plant and equipment expenditures by U.S. manufacturers as a whole had steadily increased. *Id.* at C-21, Table C-12.

[32] Tr. 561-63 (Dr. LeSourd).

[33] Thus, John P. Figh of the Chase Manhattan Bank testified that the standard would threaten the viability of a number of firms in the textile industry, particularly the smaller firms. Pet. App. at 191-95.

C. OSHA's Adoption of the Standard

On June 19, 1978, OSHA adopted the final Standard. The Standard establishes a PEL of 0.2 mg/m^3 of cotton dust as measured by a vertical elutriator in the textile manufacturing operations of opening through warping (yarn manufacturing) and a PEL of 0.75 mg/m^3 in slashing and weaving.[34] In all cases, the applicable PEL is to be achieved solely through the use of engineering and work practice controls, and such controls are to be implemented fully within four years.[35] The Standard also imposes a host of ancillary requirements, including exposure monitoring, medical surveillance, work practice restrictions and provisions requiring employers to transfer and to guarantee the earnings, rights and benefits of employees who are unable to wear respirators in circumstances where the Standard requires their use.[36]

OSHA took the same approach to setting exposure limits for cotton dust as it has in setting standards for carcinogens, including benzene.[37] Finding that for cotton dust, as for carcinogens, there is no absolutely safe level of exposure, OSHA concluded that the Act requires it to set the exposure limit at a level that will "assure maximum benefit . . . constrained only by the limits of feasibility." 43 Fed. Reg. at 27378, col. 3. As inter-

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[34] 29 C.F.R. § 1910.1043(c) (1979), Pet. App. at 3. In other covered segments of the cotton handling and processing industry, the PEL is 0.5 mg/m^3. *Id.*

[35] 29 C.F.R. § 1910.1043(e), (g), (m) (1979), *as amended at* 45 Fed. Reg. 12416 (1980), Pet. App. at 5-6, 9-10, 17-18.

[36] *See, e.g.*, 29 C.F.R. § 1910.1043(d), (f), (g), (h) (1979), Pet. App. at 3-13.

[37] 43 Fed. Reg. 5918 (1978), *set aside, American Petroleum Inst. v. OSHA*, 581 F.2d 493 (5th Cir. 1978), *aff'd sub nom. Industrial Union Dep't, AFL-CIO v. American Petroleum Inst.*, 48 U.S.L.W. 5022 (U.S. July 2, 1980).

preted by OSHA, this means that the exposure limit must be set at the lowest level that is technologically achievable, as long as the costs of implementing such technology will not threaten the existence of the affected industry as a whole. 43 Fed. Reg. at 27378.

Moreover, as in the case of benzene, OSHA specifically rejected the contention that it must assess the benefits of the Cotton Dust Standard in light of its costs or consider the relative health effectiveness and costs of alternative approaches.[38] For cotton dust, as for benzene, once OSHA had determined that the Standard was "within the financial capability of the covered industries," it considered its economic analysis to be complete.[39] Echoing word for word the approach that it took in the Benzene proceeding, the agency declared "that the benefits of the proposed standard are likely to be appreciable," and asserted that, having made such a determination,

> OSHA is not obligated to carry out further exercises toward more precise calculations of benefit which would not significantly clarify the ultimate decision.[40]

OSHA acknowledged that the early, mild stages of byssinosis are reversible, 43 Fed. Reg. at 27352, 27354, that these early, nondisabling effects progress to the chronic state only with further exposure, *id.* at 27354, and that "a properly managed [medical surveillance] program should identify affected workers well before the onset of chronic obstructive pulmonary disease," *id.* at 27359, col. 3. Nonetheless, OSHA summarily rejected

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[38] 43 Fed. Reg. at 27379, col. 3 (Cotton Dust); 43 Fed. Reg. at 5941, col. 2 (Benzene).

[39] 43 Fed. Reg. at 27379, col. 3 (Cotton Dust); 43 Fed. Reg. at 5941, col. 2 (Benzene).

[40] 43 Fed. Reg. at 27379, col. 3 (Cotton Dust); 43 Fed. Reg. at 5941, col. 2 (Benzene).

ATMI's proposed alternative, apparently because of its belief (1) that even the mild, nondisabling and reversible symptoms of byssinosis constitute "material impairment of health" within the meaning of the OSH Act, and (2) that the most stringent approach (providing the maximum degree of protection possible against even mild, reversible symptoms) must always be adopted in any single health standard, so long as compliance *with that one standard* will not threaten the financial viability of the entire industry, 43 Fed. Reg. at 27378, col. 2.[41]

OSHA's treatment of the Standard's cost impact was enigmatic. As noted above, the only estimate of the capital cost of a 0.2 mg/m^3 standard in yarn manufacturing operations was the $1.1 billion figure presented by OSHA's contractor, RTI. However, OSHA rejected the RTI cost estimate out of hand. Instead, OSHA decided that an appropriate estimate of the capital cost of the Standard for the textile industry would be the $550 million estimate developed by Hocutt and Thomas for a less stringent standard with higher exposure limits. OSHA was unable to demonstrate (and, indeed, made no real effort to demonstrate) how the Hocutt-Thomas figures could be transmuted into an accurate estimate of the costs of an entirely different standard having much more stringent exposure limits.

Relying on RTI's "extreme assumption" that the compliance costs of the Standard would be passed on in product prices, OSHA then concluded that the Standard would be economically feasible, since capital costs of $550 million would not threaten the economic viability of the

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[41] In light of the approach followed by OSHA, it is not surprising that the preamble to the Cotton Dust Standard, like the preamble to the Benzene Standard, makes no reference whatsoever to Section 3(8) of the OSH Act and no finding that the Standard is "reasonably necessary or appropriate to provide safe or healthful employment and places of employment."

industry as a whole. 43 Fed. Reg. at 27377-78; Pet. App. at 144. OSHA reached this conclusion despite its recognition that some employers would be forced to shut down and that the financial impact of the Standard would be felt more acutely by smaller firms, thus enhancing a trend toward concentration within the industry. 43 Fed. Reg. at 27378, col. 2.

D. The Decision of the Court Below

In all significant respects, the court below upheld the approach to setting occupational health standards that OSHA had followed in the Cotton Dust proceeding. The court agreed that, under the Act, OSHA must adopt the standard that provides the maximum degree of protection against any risk of health impairment, as long as that standard is technologically feasible and not financially ruinous to the industry as a whole. Pet. App. at 53-54, 617 F.2d at 655. According to the court, nothing in the OSH Act requires any further assessment of the health protection benefits of the Standard in light of its costs, Pet. App. at 71, 617 F.2d at 663, or of the relative risk reduction that might be achieved by less costly alternatives.

The court acknowledged that the early symptoms of byssinosis are reversible, Pet. App. at 53, 617 F.2d at 655, and did not find that these symptoms constitute "material impairment" of health within the meaning of the Act. Pet. App. at 50-51 n.83, 617 F.2d at 654 n.83. Nonetheless, believing that OSHA's more stringent (and far more costly) approach would provide some additional protection beyond ATMI's proposed alternative, the court declined to require OSHA to attempt to assess the extent of this additional protection or to consider the benefit of such additional protection in light of the costs. *Id.*

The only economic question that the court below deemed relevant was whether the Standard would have such a devastating cost impact as to make financial viability impossible for the industry as a whole, effectively "put-[ting] the industry out of business." Pet. App. at 69, 617 F.2d at 662.[42] The fact that a number of plants and small companies might be forced to close, thereby changing the market structure of the industry, did not "signify economic infeasibility" in the court's view, Pet. App. 67-68 & n.148, 617 F.2d at 661-62 & n.148, particularly since OSHA had found an existing trend toward increasing concentration in the industry.[43] Moreover, in finding the Standard to be economically feasible, the court, like OSHA, relied on RTI's "extreme assumption" that the costs of compliance would be passed on in product prices and did not require OSHA to present any evidence to support that assumption. Pet. App. at 67 n.145, 617 F.2d at 661 n.145.

Finally, the court did not require OSHA to base its economic impact analysis upon any study that purported to assess the costs of the Standard actually adopted. Rather, the court sustained OSHA's decision to use the Hocutt-Thomas cost estimate, even though that estimate addressed the costs of a much less stringent standard. The court thus permitted the agency to choose between two cost estimates, both of which it had found to be inaccurate, and to adopt a Standard the costs of which were not assessed in any study that OSHA believed to be valid.

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[42] At the same time, the court conceded that "the actual test for economic feasibility has yet to be fully developed by the courts." Pet. App. at 67, 617 F.2d at 661.

[43] Curiously, the court held that OSHA had not established the economic feasibility of its Standard as applied to the cottonseed oil industry, despite the fact that there too OSHA had pointed to similar factors independent of the Standard that would contribute to anticipated shutdowns in the industry. Pet. App. at 90-91, 617 F.2d at 671-72.

SUMMARY OF ARGUMENT

I.

This case calls upon the Court to decide what determinations OSHA must make regarding the economic impact of its health standards. OSHA's approach treats the costs of its standards as being totally irrelevant until they reach some undefined point at which the standard, if implemented, would cause the destruction of an entire industry. This interpretation of the Act leaves OSHA with virtually unfettered authority to impose enormous costs upon American employers. Only a few months ago, this Court rejected OSHA's claim to such extravagant authority. *Industrial Union Department, AFL-CIO v. American Petroleum Institute*, 48 U.S.L.W. 5022 (U.S. July 2, 1980) [hereinafter "*Benzene*"].

In that case, OSHA claimed that it need take no account of the magnitude of the health risks being addressed. In this case, OSHA asserts that it need take no account of costs short of the point where they threaten the ruination of an entire industry. If OSHA's position were accepted, the agency would enjoy precisely the "unprecedented power over American industry," 48 U.S.L.W. at 5032, that this Court held to be contrary to Congress' intent in *Benzene*.

The present case illustrates the inadequacy of OSHA's approach. OSHA concluded that the Cotton Dust Standard would be economically feasible without relying on any study purporting to assess its costs. Instead, OSHA took the estimated cost figure of a less severe standard and, without warrant, treated it as the cost of its own far more stringent Standard. Relying on an unsupported "extreme assumption" regarding price-demand elasticity, it then concluded that a standard having such costs would not threaten the financial viability of the industry as a whole.

The economic limitation that OSHA purported to apply here is, in reality, no limitation at all. The qualified

and pragmatic language of the OSH Act reflects a congressional expectation that standard setting under the Act would be a more balanced exercise, in which the cost impact of regulatory action would play a more prominent role. Because the position of OSHA and the court below shows an utter disregard for the more pragmatic and balanced approach that Congress intended, and because it raises serious questions of an overbroad delegation of legislative authority, it must be rejected.

The judgment below also must be reversed because OSHA made no attempt to ascertain whether the benefits of its Standard (in the form of a claimed reduction in health risk) bear a reasonable relationship to the attendant costs. Both in its overall objectives and its more specific directives, the Act reflects a congressional intent that OSHA spend society's limited industrial hygiene resources wisely, so that employees can be protected, as far as possible, against the wide variety of health and safety risks in the workplace. This goal cannot be achieved if vast expenditures are mandated to achieve negligible reductions in risk. Consequently, OSHA must assess the significance of the reduction in risk expected from its standards in light of the costs of achieving that reduction.

The failure of OSHA to perform such an assessment is particularly egregious in the present case, because the petitioners had presented a far less costly alternative that promised to provide workers with health protection comparable to that expected from OSHA's far more burdensome Standard. Cotton dust, unlike benzene, is not a carcinogen, and byssinosis, the health impairment with which it is associated, is detectable in its early stages, when it is nondisabling and reversible. Consequently, the only material health impairment involved in the present case is much more easily averted than the malignant condition that was involved in *Benzene*. In these circumstances, OSHA's failure to perform a careful and re-

sponsible assessment of health protection benefits in light of the respective costs of the two alternatives requires reversal.

II.

The court below also erred in sustaining a provision of the Standard that requires employers to transfer and guarantee the wages of an employee who for any reason is unable to wear a respirator in circumstances where the Standard requires its use. This wage guarantee obligation—which is not tied to the existence of any health impairment—exceeds the authority that Congress conferred upon OSHA. The statute contains no express grant of such authority, and the legislative history of the OSH Act and provisions of related legislation demonstrate that Congress did not intend to confer such authority by implication.

ARGUMENT

I. THE COTTON DUST STANDARD IS PREDICATED UPON LEGALLY INSUFFICIENT CRITERIA FOR ASSESSING THE ANTICIPATED ECONOMIC IMPACT AND REDUCTION IN RISK THAT THE STANDARD IS EXPECTED TO PRODUCE.

The decision below permits OSHA to regulate in a manner that is essentially oblivious to considerations of cost, except in the very most extreme circumstances. The hallmark of OSHA's approach is a financial impact limitation that is wholly illusory and provides no constraint whatever on agency discretion. In Part I.A below, we show that this approach is both constitutionally questionable and at odds with the intent of Congress. OSHA is required to make a responsible prediction, supported by substantial evidence, of the economic impact that its standard will have and to explain why it believes that a standard having such an impact is feasible.

Moreover, as we show in Part I.B below, OSHA must responsibly assess the costs and risk reduction benefits of its standards in order to determine that employers are not being forced to incur enormous costs that bear no reasonable relationship to the health benefits expected to be achieved.

A. The Decision Below Mistakenly Permits OSHA To Adopt Health Standards That Are Subject to No Meaningful or Effective Cost-Related Limitations.

As its actions in the Benzene and Cotton Dust proceedings demonstrate, OSHA appears to believe that Congress left it free to impose enormously costly requirements *in the context of a single health standard*, as long as compliance *with that one standard* would not ruin an entire industry.[44] This position reflects OSHA's belief that Section 3(8) of the Act, which provides that occupational health standards should be "reasonably necessary or appropriate to provide safe or healthful employment," imposes no substantive restrictions on its standard-setting activities, and that Section 6(b)(5) mandates the creation of absolutely risk-free workplaces, subject only to technological limitations and the most attenuated economic constraints.

So construed, the Act imposes no meaningful or effective cost-related limitations upon OSHA's standard-setting authority. In such circumstances, industry cannot know what OSHA may do,[45] and effective judicial review is impossible.[46] In part because such an unconfined delegation of legislative power would raise constitu-

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[44] *See Benzene*, 48 U.S.L.W. at 5030; Pet. App. at 67-69, 617 F.2d at 661-62.

[45] *See United States v. Rock Royal Co-Op., Inc.*, 307 U.S. 533, 574 (1939); *Panama Refining Co. v. Ryan*, 293 U.S. 388, 415 (1935).

[46] *American Power & Light Co. v. SEC*, 329 U.S. 90, 106 (1946).

tional problems,[47] this Court recently rejected OSHA's approach to standard setting in *Benzene*. As the plurality stated:

> [W]e think it is clear that the statute was not designed to require employers to provide absolutely risk-free workplaces wherever it is technologically feasible to do so, so long as the cost is not great enough to destroy an entire industry.

48 U.S.L.W. at 5031. The plurality continued: "[I]t is unreasonable to assume that Congress intended to give the Secretary the unprecedented power over American industry that would result from the Government's view of §§ 3(8) and 6(b)(5)." *Id.* at 5032.

In *Benzene*, the plurality limited OSHA's standard-setting authority to situations in which a "significant risk of material health impairment" would exist in the absence of the standard. *Id.* at 5030. But that threshold requirement standing alone will do little, if anything, to curb OSHA's power over American employers if the only cost-based restraint on OSHA's authority is that any single standard must not destroy an entire industry. In effect, the "sweeping delegation of legislative power" that the *Benzene* plurality avoided with respect to health risks will be presented with respect to costs.[48] The Act can and should be construed to avoid this result.[49]

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[47] *See* U.S. Const. art. I, § 1; *A.L.A. Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935).

[48] In such circumstances, OSHA would be making the "crucial policy choices" that the Constitution reserves for Congress. *The Supreme Court, 1979 Term*, 94 Harv. L. Rev. 75, 242, 249 (1980).

[49] *See Benzene*, 48 U.S.L.W. at 5032. Where, as here, administrative regulation presents a "sharp break with our traditions," J. Freedman, *Crisis and Legitimacy* 84-85 (1978), this Court has strictly scrutinized the statutory grant claimed to authorize the action in question and has upheld the action only if authorized

Just as OSHA was required by the *Benzene* case to show that its standards address a significant health risk, the agency must also be required to identify and assess the economic impact of its standards on the basis of criteria that set some meaningful and effective limits on its standard-setting authority. As we now show, the economic feasibility test that OSHA and the court below applied here imposes no such limits on the agency's authority and departs from what Congress intended. Accordingly, the judgment of the court below must be reversed.

1. *OSHA Failed To Make a Responsible and Supportable Estimate of the Costs of Its Standard or To Apply Any Meaningful Criteria in Assessing the Standard's Economic Impact.*

A fundamental and dispositive consideration in this case is that OSHA did not support the Cotton Dust Standard with any study or analysis purporting to assess its costs. One cost analysis, a $1.1 billion estimate prepared by OSHA's contractor, RTI, was in the record, but OSHA rejected it out of hand.[50] Apparently OSHA be-

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clearly and unmistakably. *See, e.g., Kent v. Dulles*, 357 U.S. 116, 128-30 (1958); *National Cable Television Ass'n, Inc. v. United States*, 415 U.S. 336, 342 (1974); Stewart, *The Reformation of American Administrative Law*, 88 Harv. L. Rev. 1667, 1697 (1975) (advocating "a policy of narrow construction of statutory delegations").

[50] OSHA's principal objection was its contention that approximately 30% of the capital costs estimated by RTI were for controlling dust from equipment processing synthetic fibers in cotton blend mills. 43 Fed. Reg. at 27370. In fact, the Standard requires controls on such equipment, as long as that equipment is located in a work area where cotton is handled or processed, even though on other machines. *See* 29 C.F.R. § 1910.1043(b) (1979), Pet. App. at 2 (definition of "cotton dust" and "lint-free respirable cotton dust"). OSHA also was disturbed by RTI's assumption that all companies were presently in compliance with the previous standard. 43 Fed. Reg. at 27370. In fact, while some firms were already below the limit set by the previous standard, many others had not yet achieved that limit. *Id.* The record indicated that the industry would have

lieved that its Standard would be prohibitively expensive (and thus not economically feasible) if it cost as much as RTI estimated.[51] But the RTI estimate was the only analysis directed to the exposure limits OSHA actually adopted. Even OSHA recognized that if the RTI estimate were rejected, something else was needed. To fill the gap, OSHA treated the Hocutt-Thomas estimate of a far less stringent and less costly proposal as an appropriate estimate of the capital cost of the Standard it ultimately adopted. This treatment, accomplished in two steps, is utterly without justification.

First, OSHA announced its belief that the Hocutt-Thomas capital cost estimates of $550 million for exposure limits substantially above those ultimately adopted in the Standard were "overstatements." But the agency provided no rational explanation for this conclusion. Thus, OSHA observed that compliance with the final standard would be less costly than it would have been for the proposed standard. 43 Fed. Reg. at 27372, col. 3. While accurate, this observation sheds no light at all on why the Hocutt-Thomas capital cost estimate is likely to have been overstated, since the Hocutt-Thomas estimate did not relate to either the proposed or final standard. The balance of OSHA's rationale is equally

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to incur more than $143 million in capital costs (above and beyond what RTI had estimated) just to comply with the previous standard. Ex. 69 at 3-6 (L. K. Fitzgerald).

[51] In fact, the RTI estimate of $1.1 billion was, if anything, unduly low, since it was presented in 1974 dollars and should have been increased by 40% (to $1.54 billion) to account for inflation in machinery and equipment costs between 1974 and June 1978 when the Standard was adopted. This increase is reflected in the Wholesale Price Index for Machinery and Equipment, which rose from 139.4 to 195.1 between 1974 and June 1978. Monthly Labor Review 114 (March 1975); *id.* at 94 (October 1978). RTI considered this Index to be a reliable guide to price increases for textile plants and equipment. *See* Ex. 6, No. 76 at C-20, Table C-12.

unpersuasive.[52] The fact is that OSHA was engaging in the sheerest speculation when it characterized the Hocutt-Thomas capital cost estimate as an "overstatement."

But only at this point did the real speculation begin. For OSHA then proceeded to announce that it would treat the Hocutt-Thomas estimate of the capital costs of a much less stringent standard as an appropriate estimate of the capital costs required to achieve the *much more stringent limits* required under its Standard. 43 Fed. Reg. at 27373. There is a certain elegance and simplicity in this leap of logic; however, there is absolutely no basis to support it.[53]

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[52] Thus OSHA speculated that Hocutt and Thomas "*may* have included some equipment which is used exclusively for synthetics." 43 Fed. Reg. at 27372, col. 3 (emphasis added). Apart from the fact that this was merely a surmise on OSHA's part, the fact is that the Standard as adopted requires controls on most such equipment. *See* note 50 *supra*. OSHA also predicted that new production equipment would reduce the number of machines on which the Hocutt-Thomas estimate was based. No record support was cited for this prediction. And, even if it were true, the cost of such equipment, much of which would not be purchased in the absence of the Standard, would have to be added to the cost of compliance. In addition, OSHA complained that Hocutt and Thomas had not accounted for technological improvements in the four-year compliance period. No citation to the record supported this statement; nor was "technology" defined. Moreover, this vague generalization was flatly refuted by Hocutt's testimony that, for the next *seven* years, he saw little new dust control technology that would make compliance less expensive for the operations of spinning through weaving. Tr. 2388-93. Finally, OSHA stated that the Hocutt-Thomas estimate included some costs necessary to come into compliance with the pre-existing exposure limits. Such costs were properly included by Hocutt and Thomas, since they are part of the total costs that would have to be incurred to comply with a new standard. *See United Steelworkers of America, AFL-CIO-CLC v. Marshall*, [1980] OSH Dec. (CCH) 30329, 30418, 30429, 8 OSH Cas. (BNA) 1810, 1902, 1913-14 (D.C. Cir. Aug. 15, 1980) (MacKinnon, J., dissenting); Comments of the Council on Wage and Price Stability, Ex. 111 at 10.

[53] For example, Hocutt and Thomas estimated that the capital costs to achieve a 0.5 mg/m^3 limit in spinning would be only $17.8

What really occurred is quite simple. Confronted with one estimate (RTI) that demonstrated a lack of economic feasibility by any test and another (Hocutt-Thomas) that did not address the Standard actually adopted, OSHA proceeded to select the Hocutt-Thomas figure as being the less objectionable of the two, since it was more compatible with the result OSHA wished to achieve. 43 Fed. Reg. at 27373. But, even if Hocutt and Thomas did overestimate the costs of the less stringent proposal that they had analyzed, only by the most remarkable coincidence would the amount of that overestimate be equal to the additional costs required to attain the far more stringent limits of the Standard OSHA actually adopted. Such an approach to the determination of costs cannot be sustained, for it dispenses with substantial evidence and amounts to regulation by speculation.[54] The OSH Act requires something better.[55]

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million. *See* Pet. App. at 152-156 (Hovan Hocutt). By contrast, RTI estimated that achieving a 0.2 mg/m^3 limit in spinning would cost $553.3 million. (This is derived by applying a process-by-process ratio to RTI's final total capital cost estimate for the operations of opening through spinning. *See* Ex. 6, No. 76 at I-15, V-17.) Thus, the only estimates in the record indicated that the Hocutt-Thomas figures would have to be increased by at least $535 million if it were to be applied to achieving a 0.2 mg/m^3 limit in spinning alone.

OSHA itself appeared to recognize that substantial costs beyond those estimated by Hocutt and Thomas would be required to achieve a 0.2 mg/m^3 limit in spinning. Thus, OSHA stated that a "major effort" would be necessary to attain this limit and observed that its decision to set a higher exposure level in weaving would permit the industry to "focus more resources on spinning operations" in order to make this "major effort." 43 Fed. Reg. at 27367, col. 2.

[54] *See Texas Independent Ginners Ass'n v. Marshall*, Nos. 78-2663, *et al.*, slip op. at 1216 & n.27; *cf. National Wildlife Fed'n v. Andrus*, 440 F. Supp. 1245, 1253 (D.D.C. 1977) (weighing of benefits and costs is impossible "where there is only speculation . . . concerning the impact upon the environment").

[55] 29 U.S.C. § 655(f). *See Benzene*, 48 U.S.L.W. at 5034 (plurality opinion); *American Petroleum Inst. v. OSHA*, 581 F.2d at 497;

OSHA's determination that the Standard would not threaten the economic viability of the industry as a whole was as flawed as its estimate of what the Standard would cost. In critical respects, this determination rested on what RTI characterized as the "extreme assumption" that the compliance costs of the Standard would be passed through in the price of cotton products.[56] RTI made this assumption (and OSHA and the court below accepted it)[57] without any support, analysis or explanation—even though, as RTI recognized, the Standard would reduce profits and return on investment in the textile industry to very low or negative levels if the increased costs could not be passed on in product prices. Pet. App. at 143.

Industrial Union Dep't, AFL-CIO v. Hodgson, 499 F.2d at 474.

The extreme to which OSHA will go if permitted to regulate as it has in the present case is also well illustrated in the Lead Standard proceeding. 43 Fed. Reg. 52952 (1978); 43 Fed. Reg. 54354 (1978). In that case, OSHA proposed a PEL of 100 ug/m^3, and the record contained several studies estimating the cost of achieving such a standard. However, the final standard established a PEL of only 50 ug/m^3, and OSHA stated that compliance with the final standard "would not result in undue economic hardship" to the affected industries. *Id.* at 54496, col. 3. OSHA reached this conclusion even though it "did not undertake a formal analysis of cost of compliance with the 50 ug/m^3 PEL," and even though it admittedly lacked sufficient information to make a "meaningful quantification of cost" for any standard stricter than the one it had proposed. *Id.* Instead, it simply utilized the compliance cost estimate prepared for the proposed 100 ug/m^3 standard as the basis for determining the economic feasibility of the 50 ug/m^3 standard that it actually adopted. On review, the D.C. Circuit held this to be a sufficient basis for establishing economic feasibility. *United Steelworkers of America, AFL-CIO-CLC v. Marshall*, [1980] OSH Dec. (CCH) at 30394-95, 30398-401, 30402-03, 8 OSH Cas. (BNA) at 1877-78, 1881-83, 1885-87.

[56] *See* pages 13, 16-17 *supra*.

[57] 43 Fed. Reg. at 27370; Pet. App. at 67 & n.145, 617 F.2d at 661 & n.145.

In fact, there was little basis for RTI's "extreme assumption." To the contrary, the evidence of record suggested that competitive constraints (including inroads made by foreign competition) would preclude the passing on of full compliance costs in product prices,[58] and neither RTI nor OSHA presented evidence or analysis that would support a contrary conclusion. As the Fifth Circuit recently observed in setting aside the application of OSHA's Cotton Dust Standard to the ginning industry, the Act requires that OSHA's findings be based on substantial evidence rather than "on assumptions without an adequate evidentiary basis." *Texas Independent Ginners Association v. Marshall*, Nos. 78-2663, *et al.*, slip op. at 1220.

Even accepting this extreme assumption, however, RTI and others expressed great concern about the ability of many textile firms to raise the capital needed to install controls sufficient to achieve a 0.2 mg/m^3 exposure limit. If the controls were phased in over an eight-year period (rather than the four years ultimately allowed), RTI expected that the Standard would precipitate some plant closures.[59] OSHA joined in this conclusion, acknowledging that the Standard would result in the shutdown of a number of employers and would cause greater concentration in the industry.[60] Indeed, OSHA observed that RTI had probably underestimated

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[58] The record showed that cotton's share of total domestic fiber sales dropped from over 70% in 1947 to only 30% in 1974, largely as a result of foreign competition and the availability of synthetic yarns. Pet. App. at 147-48. And this competition was shown to be continuing, with imports growing at a rate of about 6-7% a year for products covered by multilateral trade agreements. *Id.* at 148, 150-51; *see also* Tr. 2565-71 (Mr. John P. Figh).

[59] Ex. 6, No. 76 at VI-125-29; Tr. 561-63 (Dr. LeSourd).

[60] 43 Fed. Reg. at 27378, col. 2. In fact, the impact necessarily would be more severe than OSHA presumed, since RTI had assumed that the capital costs would be incurred over an eight-year period. The Standard shortened this to four years, but OSHA took no account of the added economic impact that would result.

the financial impact that the Standard would have on smaller firms, since compliance with the Standard by such firms would require an investment of more capital per unit of production than in the case of larger firms. 43 Fed. Reg. at 27378, col. 2.

In sum, OSHA's estimate of the costs of the Standard reflects bald assertions and outright speculation; its assessment of the economic impact of the Standard was based on an extreme and unsupported assumption that the agency applied to these speculative costs; and it acknowledged that, even so, the Standard would result in plant closures and further concentration in the industry. How much of the industry would be forced to close and what impact this would have on employment and competitive conditions are matters that OSHA failed to address in any concrete manner. Instead, on the basis of the foregoing findings, OSHA declared the Standard to be "generally feasible." *Id.* The court below upheld this determination, stating that "changes in the market structure of the industry do not signify economic infeasibility," so long as "the standard will not put the industry out of business." Pet. App. at 68-69 & n.148, 617 F.2d at 662 & n.148.

ATMI submits that this approach effectively imposes no constraint whatsoever on OSHA's standard-setting authority. Rather, it allows OSHA to exercise enormous, unstructured and "unprecedented power over American industry." *Benzene*, 48 U.S.L.W. at 5032 (plurality opinion).[61] As we show below, the language of the OSH Act and its legislative history demonstrate that Congress

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[61] The lengths to which OSHA and some courts may go under the approach followed in the recent case is illustrated by the Lead Standard proceeding. In that case, the D.C. Circuit found that OSHA's Lead Standard would be economically feasible for the battery manufacturing industry even if it forced 200 small producers out of business, since OSHA could still find that competition would survive, through the existence of 30 firms that already controlled 90% of the market. *United Steelworkers of America, AFL-CIO-CLC v. Marshall*, [1980] OSH Dec. (CCH) at 30403, 8 OSH Cas. (BNA) at 1886-87.

intended that OSHA standards would have to satisfy a more exacting test of economic feasibility than was applied in this case.

2. *OSHA's Construction of the Act—Under Which the Costs of a Standard Are Irrelevant Short of the Point at Which They Threaten To Ruin an Entire Industry—Is Inconsistent with the Statutory Language and Legislative History.*

As this Court recognized in *Benzene*, the language of the OSH Act is not focused solely upon the promotion of worker health and safety to the exclusion of other concerns.[62] The mere fact that compliance costs are not "great enough to destroy an entire industry" does not mean that a standard comports with the requirements of the Act. 48 U.S.L.W. at 5031 (plurality opinion). To the contrary, "Congress did not intend OSHA to reduce each significant hazard without regard to economic consequences . . . short of serious dislocation." *Id.* at 5038 n.5 (Powell, J., concurring).

The overall objective of the Act, as set forth in Section 2(b), is to assure safe and healthful working conditions, "so far as possible." 29 U.S.C. § 651(b). And, pursuant to Section 3(8), an occupational health standard may require only such conditions, practices, and operations as are "reasonably necessary or appropriate to pro-

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[62] The qualified and pragmatic language of the OSH Act stands in sharp contrast to the unqualified language of such statutory provisions as the Endangered Species Act of 1973, 16 U.S.C. § 1536(a)(2) (Supp. III 1979), and the Delaney Clause of the Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 348(c)(3)(A) (1976). In relevant part, the Endangered Species Act unqualifiedly prohibits the funding of projects that would "jeopardize the continued existence of any endangered species . . . or result in the destruction or adverse modification of habitat of such species . . . ." The Delaney Clause states unequivocally that "no additive shall be deemed to be safe if it is found to induce cancer when ingested by man or animal."

vide safe or healthful employment and places of employment." As noted by the plurality in *Benzene*, a workplace can be "safe" within the meaning of Section 3(8), even though it is not entirely risk-free. 48 U.S.L.W. at 5031.[63] Similarly, as Professor Currie points out:

> What is "appropriate" [within the meaning of Section 3(8)] may be what is desirable in light of feasibility or cost; what is "reasonably necessary" may be what is both necessary and reasonable.[64]

Like Sections 2(b) and 3(8), the standard-setting provisions of Section 6 are qualified and relative in nature. Thus, Section 6(b)(5) provides that occupational health standards are to protect—not absolutely—but only "most adequately" against the health hazard to which the standard is directed. The requirements that protection be provided only "to the extent feasible" and only against "material impairment" are further pragmatic limitations. This language reflects the inevitable fact that there are some risks that it will not be "feasible" to eliminate or reduce and, as the *Benzene* plurality recognized, 48 U.S.L.W. at 5033, others that must be disregarded as not "material," if employees are to receive the most adequate overall protection against all workplace hazards.

The legislative history of Section 6(b)(5) confirms the qualified nature of the statutory language. Thus, Senator Javits, the author of the original Administration bill (S. 2788), took the position that OSHA standards should be "feasible" in the sense of being "reasonable" and "practical" as well as technologically achievable. His

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[63] *Cf.* Currie, *OSHA*, 1976 Am. B. Foundation Research J. 1107, 1134 (1976) (the terms "safe or healthful" allow "room for some play"). EPA also has recognized that "use of the term 'safety' [does not] necessarily imply a zero-risk concept." 44 Fed. Reg. 58642, 58660, col. 3 (1979).

[64] Currie, *supra* note 63, at 1134.

original bill would have required the submission to an independent board of what Senator Javits described as "a report on the feasibility of the proposed standards." [65] "Feasibility" for the purpose of such standard setting was defined as including "the technical feasibility, reasonableness and practicality of such standard." [66] This "feasibility report" was to be considered by the independent board, along with other record evidence, in formulating its standards.[67]

The Senate Committee rejected the concept of an independent board but agreed that "standards promulgated under Section 6(b) shall represent feasible requirements." Leg. Hist. at 147. Accordingly, the term "feasibly" was added to Section 6(b)(5) by the Committee and remained in the version passed by both Houses, thereby satisfying the concern of Senator Javits and others that standards be reasonable and practical.[68]

The substitution of the phrase "material" for "any" impairment of health responded to a similar concern that OSHA might seek to establish a risk-free utopia regardless of cost. Leg. Hist. at 480 (remarks of Sen-

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[65] 115 Cong. Rec. 22517, col. 3 (1969).

[66] S. 2788, 91st Cong., 1st Sess. § 4(c) (1969), *reprinted in* Leg. Hist. at 38-39.

[67] *Id.* § 4(c)(2), (3), *reprinted in* Leg. Hist. at 39-40.

[68] Senator Dominick supported Senator Javits' attempt to include a feasibility limitation. However, he was concerned that the placement of the term "feasibly" in the Committee bill might still be read to require that an occupation be banned if there remained "*some* risk of injury, impaired health, or life expectancy." Leg. Hist. at 367. He attempted to cure this problem by relocating the feasibility requirement to the position that it occupies in Section 6(b)(5) as enacted. *See Benzene*, 48 U.S.L.W. at 5033 n.53. As Senator Dominick explained: "What we were trying to do in the bill . . . was to say that when we are dealing with toxic agents or physical agents, we ought to take such steps as are feasible and practical to provide an atmosphere within which a person's health or safety would not be affected." Leg. Hist. at 502.

ator Dominick). Substituting "material" for "any" was part of an effort to achieve a more "balanced" bill, so that, in the words of Senator Saxbe, OSHA health standards would not amount to "harassing measures that would, in effect, limit production in areas that are not necessarily going to increase safety." *Id.* at 321.[69]

The legislative compromise that resulted in the imposition of the "substantial evidence" requirement in Section 6(f) of the Act, 29 U.S.C. § 655(f), also is indicative of Congress' concern that enormous costs not be imposed to produce insignificant benefits.[70] This compromise, as the Fifth Circuit has observed,

> accommodated the Senate's desire for administrative convenience and flexibility by accepting informal rulemaking procedures, but placated House concern for protection of employers from arbitrary burdens imposed by a massive federal bureaucracy, [by] adopting the substantial evidence test for judicial review.[71]

In short, the legislative history of the OSH Act reflects Congress' belief "that it was enacting a fair and reasonable bill that balanced the needs of workers and indus-

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[69] As noted in a recent comment, the legislative history of the amendment that added the word "material" to Section 6(b)(5) suggests "that risks that could not be eliminated cost efficiently were also meant to be excluded from OSHA regulation." *The Supreme Court, 1979 Term*, 94 Harv. L. Rev. at 247.

[70] Unless the "substantial evidence" test were substituted for the more lenient "arbitrary and capricious" standard, many in Congress feared that OSHA would be free to impose unjustified burdens. *See* Leg. Hist. at 343-44 (remarks of Senator Cook). As part of the compromise, OSHA was permitted to act through informal rulemaking procedures.

[71] *Florida Peach Growers Ass'n v. Department of Labor*, 489 F.2d 120, 128 (5th Cir. 1974) (citing *Associated Indus. of New York State, Inc. v. Department of Labor*, 487 F.2d 342 (2d Cir. 1973)).

try." [72] It clearly shows the congressional concern that some meaningful and effective economic limitations be placed upon OSHA's standard-setting authority. Without such limitations, it would be impossible to ensure that the legislation was balanced or that OSHA standards would be "neither oppressive nor needlessly costly and without unjustified harassment of management." [73] The open-ended affordability test applied by OSHA and the court below—under which costs are irrelevant short of the point at which destruction of an entire industry is threatened—does not comport with the intent of Congress.

Rather, OSHA must present a responsible prediction, supported by substantial evidence, of what its standard will cost and what impact it will have on such factors as production, employment, competition, and prices.[74] And the agency must explain in a cogent manner—on the basis of intelligible criteria—why it concludes that a standard having such an economic impact is "feasible." OSHA's performance in the present case falls far short of satisfying such a test. For that reason alone, the judgment below must be reversed. Moreover, as shown below, the Cotton Dust Standard must be set aside because OSHA made no attempt to determine whether the Standard would produce a reduction in risk that is significant when considered in light of the attendant costs.

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[72] *The Supreme Court, 1979 Term*, 94 Harv. L. Rev. at 248.

[73] Leg. Hist. at 1091 (remarks of Congressman Randall). This concern for balanced legislation was a consistent theme. *See, e.g., id.* at 320-21 (remarks of Senator Saxbe); *id.* at 433 (remarks of Senator Williams); *id.* at 1143 (remarks of Senator Javits); *id.* at 1150 (remarks of Senator Eagleton).

[74] *See Texas Independent Ginners Ass'n v. Marshall*, Nos. 78-2663, *et al.*, slip op. at 1223 ("OSHA's estimate of the anticipated cost and expected benefit of proposed regulations are factual findings that must be supported by substantial evidence in the record").

B. The Decision of the Court Below Should Be Reversed Because OSHA Did Not Show That the Standard Was Likely To Achieve a Reduction in Risk That Is Significant When Considered in Light of Its Costs.

In Part I.A above, we showed that the extravagantly expansive concept of OSHA's standard-setting power embraced by the court below cannot be maintained as a constitutional or statutory matter. In this part, we discuss an alternative construction of the Act that more faithfully reflects the congressional intent that society's limited industrial hygiene resources be spent wisely —so that vast sums are not squandered on measures that produce no significant health protection for workers. Because OSHA acted in disregard of this congressional expectation, the Cotton Dust Standard must be set aside.

1. *OSHA Is Required To Show That a Reasonable Relationship Exists Between the Risk Reduction Benefits and the Costs of Its Standards.*

The language of the OSH Act, as construed by this Court in *Benzene*, requires OSHA to show that its standard will produce a significant reduction in the risk of material health impairment. Such a showing must reflect an assessment of the costs and benefits of the standard (and of available alternatives) sufficient to permit OSHA to determine that the risk reduction benefits of the standard bear a reasonable relationship to its costs. This construction is consistent with the weight of pertinent judicial and administrative precedent under the OSH Act and analogous health and safety legislation.

a. *The OSH Act as Construed in* Benzene

In *Benzene*, the plurality construed the qualified and pragmatic language of the OSH Act to reflect Congress' intent that OSHA not be permitted to make exorbitant

and excessive demands upon the limited resources of American employers in a quixotic effort to eliminate all incremental risks from the workplace. To give effect to these pragmatic congressional concerns, the *Benzene* plurality limited the exercise of OSHA's standard-setting authority to situations where the agency shows that its standard can achieve "significant benefits" in the form of a reduction in the risk of material health impairment. 48 U.S.L.W. at 5032. As Mr. Justice Powell put it, OSHA must show that its standard would "significantly reduce the hazard." *Id.* at 5037 (Powell, J., concurring).

Requiring OSHA to show that its standard is likely to produce a significant reduction in the risk of material health impairment is the necessary and logical complement to the requirement that the agency demonstrate, in the first instance, that its standard is addressed to a significant health risk. It would make no sense to permit OSHA to mandate the expenditure of vast sums that will result in no substantial reduction in the risk of material health impairment. Thus, the requirement that OSHA "consider differences in degrees of significance rather than simply a total elimination of all risk," *id.* at 5031 n.48 (plurality opinion), is a critical element in the overall statutory scheme.

If OSHA were free to disregard the extent of risk reduction that its standards would achieve, the agency, as the *Benzene* plurality noted, would possess "the power to impose enormous costs that might produce little, if any, discernible benefit." *Id.* at 5032. A standard that consumes enormous resources to produce a negligible reduction in risk is not "reasonably necessary or appropriate to provide safe or healthful employment," as required by Section 3(8) of the Act, or "feasible" within the meaning of Section 6(b)(5). By contrast, a standard that produces even a very small reduction in a significant risk of material health impairment may well satisfy

the requirements of Sections 3(8) and 6(b)(5) if its cost is relatively low.[75]

The critical point is that, pursuant to the rationale of the *Benzene* plurality, OSHA cannot validly adopt a health standard without showing both that the standard addresses a *significant risk* of material health impairment and that the standard is expected to achieve a *significant reduction in that risk.* And the determination of whether a reduction in risk is "significant" must reflect an assessment of the costs of achieving it. Otherwise, OSHA would be free to impose on employers the arbitrary burdens—costing much and accomplishing little—that Congress clearly meant to avoid. "It seems unlikely that Congress . . . intended to require massive expenditures to obtain small benefits whenever the expenditures could be made without bankrupting industries." [76]

If a reduction in risk were automatically deemed significant as long as the costs of achieving it would not produce massive dislocation, OSHA could not possibly discharge its overriding statutory obligation to protect workers "so far as possible." For, under such an approach, OSHA could require an industry to incur compliance costs up to the very limit of "affordability" (wherever that point might lie in OSHA's judgment) in order to achieve a negligible reduction in the risk addressed by *a single health standard,* while other more substantial risks would perforce remain unaddressed for lack of resources. OSHA itself should be keenly aware

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[75] For example, a standard that is expected to reduce the number of deaths in the workplace from ten per year to nine per year might well be deemed to satisfy the requirements of Sections 3(8) and 6(b)(5) if it cost only $100,000, but might not be thought to satisfy the requirements of those statutory provisions if it cost $1 billion. In the former instance, the reduction in risk could be deemed significant in light of the costs, whereas in the latter instance it might not. *See The Supreme Court, 1979 Term,* 94 Harv. L. Rev. at 247.

[76] *Id.* at 248-49.

of this problem, since it already has identified more than 200 substances that it considers to be candidates for regulation as workplace carcinogens pursuant to its Cancer Policy.[77]

In sum, OSHA must demonstrate that its standards are reasonably necessary or appropriate to achieve a significant reduction in the risk of material health impairment. Such a determination must reflect an assessment of costs and risk reduction benefits sufficient to permit OSHA to conclude that there is a reasonable relationship between the two.[78] Unless such an assessment is made, OSHA's standards inevitably will result in

> a serious misallocation of resources and a lower effective level of safety than could be achieved under standards set with reference to the comparative benefits available at a lower cost.

Id. at 5038 (Powell, J., concurring).

This does not mean that OSHA must engage in a rigidly formal cost-benefit calculation that places a dollar value on employee lives or health.[79] Assessing the benefits of a standard in light of its costs does not require that a value be assigned to worker life or health; nor does such an assessment predetermine the decisions that OSHA must make. Rather, as the court below recognized, it permits the agency to engage in a " 'systematic

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[77] *See* 45 Fed. Reg. 53672 (Aug. 12, 1980). In addition, the National Institute for Occupational Safety and Health has published a list of 2,590 substances in its Tumorigenic Citations Subfile of the Registry of Toxic Effects of Chemical Substances (Oct. 1979). *See also Benzene*, 48 U.S.L.W. at 5032 (noting "that there are literally thousands of substances used in the workplace that have been identified as carcinogens or suspect carcinogens").

[78] *See The Supreme Court, 1979 Term*, 94 Harv. L. Rev. at 249 (OSH Act should be construed to require a showing "that the benefits of a regulation bear a reasonable relationship to its costs").

[79] *See Texas Independent Ginners Ass'n v. Marshall*, Nos. 78-2663, *et al.*, slip op. at 1222 n.44.

analysis and evaluation of alternative courses of action.'" Pet. App. at 69-70 n.152, 617 F.2d at 662 n.152 (citation omitted). And it allows the agency (and the public) to ensure that society's limited industrial hygiene resources are not being squandered or misallocated in a fashion that produces very little health benefit and that provides workers with less overall protection than might otherwise be possible.[80]

The nature of the exercise in which OSHA must engage was adumbrated in *Benzene*. First, OSHA must make a responsible determination of the costs and risk reduction benefits of its standard. Pursuant to the requirement of Section 6(f) of the Act, this determination must be factually supported by substantial evidence in the record. The subsequent determination whether the reduction in health risk is "significant" (based upon the factual assessment of costs and benefits) is a judgment to be made by the agency in the first instance.[81] Although a court might well be reluctant to second guess the agency's judgment on the question of significance, the mere fact that OSHA is obligated to make such a determination, based upon an assessment of costs and benefits, will have a salutary effect on the agency's decisionmaking process.

For one thing, engaging in such an assessment will lead OSHA to reject control strategies the costs of which

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[80] Of course, life and health-protective resources are not unlimited, and compliance with OSHA standards is not the only cost industry must bear. As noted in *Making Prevention Pay*, Final Report of the Interagency Task Force on Workplace Safety and Health VII-15 (Dec. 14, 1978) (footnotes omitted):

> The cost of complying with OSHA is only part of the cumulative impact of Federal regulation on individual firms and their industries. There is growing concern that these cumulative impacts are costing jobs and draining substantial investment from new efforts at industrial innovation, while adding perhaps 3/4 of 1% to the yearly rate of inflation.

[81] *See Benzene*, 48 U.S.L.W. at 5034, 5035 n.62 (plurality opinion).

are grossly disproportionate to their benefits. It also will cause the agency to give some consideration to the impact that its standard would have on the industry's ability to address other, more significant health and safety risks in the future—including risks that OSHA anticipates will be addressed in standards that are at least in the planning stage.[82] Finally, forcing OSHA to engage in such an assessment and to explain the determination it has reached provides a potential legislative check on what might otherwise amount to the exercise of virtually untrammeled authority. It will allow for correction, through the political process, of actions that are deemed by the Congress to be extreme, unwarranted, and inconsistent with congressional intent.[83]

b. *Judicial and Administrative Precedent*

While the courts of appeals have not been unanimous in requiring that OSHA standards reflect a careful assessment of risk reduction benefits in light of costs, the weight of relevant precedent decidedly favors such a construction of the Act. Before the decision below, only one case had considered explicitly the nature of the economic impact assessment that is required in order for OSHA to comply with Section 3(8) as well as Section 6(b)(5) of the Act. *American Petroleum Institute v. OSHA*, 581 F.2d 493 (5th Cir. 1978). That decision, reviewed by this Court in *Benzene*, construed Sections 3(8) and 6(b)(5) as requiring OSHA to assess the expected health protection benefits of its standards in light of the cost burdens to be imposed and to show that the benefits

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[82] A contrary reading of the Act "could force the depletion of an industry's resources in an effort to reduce a single risk by some speculative amount, even though other significant risks remain unregulated." *Id.* at 5038 & n.7 (Powell, J., concurring).

[83] *See Amalgamated Meat Cutters & Butcher Workmen v. Connally*, 337 F. Supp. 737, 758-59 (D.D.C. 1971) (3-judge court) (Leventhal, J.); *cf. Yakus v. United States*, 321 U.S. 414, 426 (1944).

bear a reasonable relationship to the costs. 581 F.2d at 504. A different panel of the Fifth Circuit recently vacated the Cotton Dust Standard as it applied to the ginning industry because, among its other failings, OSHA did not show that such a reasonable relationship existed in that case. *Texas Independent Ginners Association v. Marshall*, Nos. 78-2663, *et al.*, slip op. at 1224-25.

The Courts of Appeals for the Sixth and Seventh Circuits have interpreted the term "feasible" to reach a similar result. Thus, in *RMI Co. v. Secretary of Labor*, 594 F.2d 566, 573 (6th Cir. 1979), the Sixth Circuit rejected the notion that controls required by an OSHA standard are "necessarily . . . economically feasible merely because the employer can easily (or otherwise) afford them." Rather, according to the court, the expenditures required by a standard are economically feasible only if OSHA demonstrates that there is "reasonable assurance that there will be an appreciable and corresponding improvement in working conditions." *Id.* Accordingly, the Sixth Circuit insisted that OSHA

> weigh the costs of compliance against the benefits expected to be achieved thereby in order to determine whether the proposed remedy is economically feasible.

Id.

In *Turner Co. v. Secretary of Labor*, 561 F.2d 82, 86 (7th Cir. 1977), the Seventh Circuit construed the term "feasible" in the same way, concluding that required controls could not be deemed feasible without determining "whether the health benefits to employees . . . justify the cost." Such a construction of the term "feasible," the court noted, was "in accordance with the clear intent of Congress and the purpose of the Occupational Safety and Health Act." *Id.* at 85.[84] Thus, the decision

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[84] In *Marshall v. West Point Pepperell, Inc.*, 588 F.2d 979, 981 n.3 (5th Cir. 1979), the Fifth Circuit observed that the *Turner* decision "certainly comports with the plain import of the term feasible."

below is inconsistent with the weight of the most directly relevant judicial precedent.[85]

It is also inconsistent with judicial interpretations of similiar language in other statutes. For example, courts have construed the provision of the Consumer Product Safety Act authorizing the adoption of rules "reasonably necessary to eliminate or reduce an unreasonable risk of injury" [86] to require the agency to assess the expected benefits in light of the burdens to be imposed by the standard.[87] Prior to the *Benzene* decision, OSHA took the position that this construction of the Consumer Product Safety Act did not apply to the OSH Act, since the Consumer Product Safety Act is addressed only to "unreasonable risks," while, in OSHA's view, the OSH Act required the elimination of *all* risks of material health impairment, whether or not they are so significant as to be unreasonable. However, this position was rejected in *Benzene*, where the OSH Act was construed as limiting OSHA to addressing only *significant* risks in its standards. Consequently, the distinction that OSHA and the court of appeals, *see* Pet. App. at 71-72 n.159, 617 F.2d

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[85] Admittedly, other courts have taken a more restrictive approach to the concept of economic feasibility. *See American Iron & Steel Inst. v. OSHA*, 577 F.2d 825 (3d Cir. 1978), *cert. granted*, 48 U.S.L.W. 3855 (U.S. July 2, 1980), *cert. dismissed*, 49 U.S.L.W. 3145 (U.S. Sept. 10, 1980); *Industrial Union Dep't, AFL-CIO v. Hodgson*, 499 F.2d 467 (D.C. Cir. 1974). However, prior to the decision below, only the Third Circuit in *American Iron & Steel Institute* had limited economic feasibility to an affordability test in an action brought by employers to challenge the validity of an OSHA standard.

Another panel of the D.C. Circuit has since followed the construction of the Act adopted by the court below. *United Steelworkers of America, AFL-CIO-CLC v. Marshall*, [1980] OSH Dec. (CCH) 30329, 8 OSH Cas. (BNA) 1810 (D.C. Cir. Aug. 15, 1980).

[86] 15 U.S.C. § 2058(c)(2)(A) (1976).

[87] *Aqua Slide 'N' Dive Corp. v. CPSC*, 569 F.2d 831 (5th Cir. 1978). *Accord, D.D. Bean & Sons v. CPSC*, 574 F.2d 643 (1st Cir. 1978); *cf. Forester v. CPSC*, 559 F.2d 774, 789 (D.C. Cir. 1977).

at 663 n.159, drew between the Consumer Product Safety Act and the OSH Act can no longer be maintained.[88]

The decision below is also at odds with the long-standing position of the Occupational Safety and Health Review Commission ("OSHRC"), the agency charged by Congress with responsibility for deciding enforcement proceedings under the Act.[89] In *Continental Can Company*, [1976-1977] OSH Dec. (CCH) 25250, 25256, 4 OSH Cas. (BNA) 1541, 1547 (1976), OSHRC interpreted the term "feasible" to require that "all the relevant costs and benefits [be] weighed."[90] OSHRC has ad-

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[88] Absent an express bar, other health and safety statutes also have been read to require consideration of risk, benefit and cost evidence. Thus, the section of the National Traffic and Motor Vehicle Safety Act providing for the adoption of "reasonable, practicable and appropriate" traffic safety standards, 15 U.S.C. § 1392 (f) (3) (1976), has been construed as requiring the Secretary of Transportation to "identif[y] some of the costs associated with the proposal and determine[] that these costs are overridden by reasonably predictable benefits." *H & H Tire Co. v. Department of Transportation*, 471 F.2d 350, 356-57 (7th Cir. 1972) (Stevens, J., concurring opinion adopted by the court) (footnotes omitted). Similarly, the Federal Water Pollution Control Act provision directing that EPA's 1983 effluent limitation guidelines reflect "the best available technology economically achievable," 33 U.S.C. § 1311(b) (2) (A) (1976 & Supp. III 1979), has been held to require consideration by EPA of "the benefits derived from the application of its effluent reduction requirements." *Appalachian Power Co. v. Train*, 545 F.2d 1351, 1361 (4th Cir. 1976). *Accord, National Crushed Stone Ass'n, Inc. v. EPA*, 601 F.2d 111, 122-23 (4th Cir. 1979), *cert. granted*, 48 U.S.L.W. 3535 (U.S. Feb. 19, 1980).

[89] *See* Section 12 of the Act, 29 U.S.C. § 661; Leg. Hist. at 462.

[90] In *Continental Can*, OSHA couched its argument in the very terms embraced by the court below in the present case, claiming that Section 6(b) (5) "requires employers to expend funds for each and every health hazard whether life threatening or not without limit so long as the expenditures for each hazard can be borne without putting the employers' financial condition in jeopardy." [1976-1977] OSH Dec. (CCH) at 25256, 4 OSH Cas. (BNA) at

hered to this view in subsequent decisions.[91]

As these decisions indicate, there is nothing novel in suggesting that an agency should develop and consider information relating to the expected benefits and costs of its proposed actions. To the contrary, the experience of numerous federal agencies (including OSHA itself) demonstrates that assessing the costs and benefits of regulatory action is both a commonplace and extremely useful exercise. Perhaps the best example of this is the experience of the Environmental Protection Agency ("EPA"), which routinely conducts risk assessments for carcinogenic substances, an exercise that, in EPA's view, represents "a significant step toward the objective of achieving real benefits in improved public health while avoiding the burdens of undesirable regulatory action." 41 Fed. Reg. 21402, 21402-03 (1976).

More recently, under Section 112 of the Clean Air Act, 42 U.S.C. § 7412 (Supp. III 1979), EPA proposed a policy for identifying and regulating airborne substances posing a risk of cancer (the "Air Cancer Policy"). 44 Fed. Reg.

1547. OSHRC rejected OSHA's position as being "inconsistent with the intent of Congress" and observed:

> Clearly, employers have finite resources available for use to abate health hazards. And just as clearly if they are to be made to spend without limit for abatement of this hazard their financial ability to abate other hazards, including life threatening hazards, is reduced.

Id.

[91] *See Castle & Cooke Foods*, [1977-1978] OSH Dec. (CCH) 26325, 5 OSH Cas. (BNA) 1435 (1977), *appeal docketed*, No. 77-2565 (9th Cir. July 14, 1977); *Great Falls Tribune Co.*, [1977-1978] OSH Dec. (CCH) 26303, 5 OSH Cas. (BNA) 1443 (1977), *appeal docketed*, No. 77-2566 (9th Cir. July 14, 1977); *West Point Pepperell, Inc.*, [1977-1978] OSH Dec. (CCH) 26136, 5 OSH Cas. (BNA) 1257 (1977), *aff'd, Marshall v. West Point Pepperell, Inc.*, 588 F.2d 979 (5th Cir. 1979); *KLI, Inc.*, [1977-1978] OSH Dec. (CCH) 26935, 6 OSH Cas. (BNA) 1097 (1977).

Most recently, in *Samson Paper Bag Co.*, [1980] OSH Dec. (CCH) 30038, 30044 (1980), the three OSHRC Commissioners

58642 (1979). Section 112 of the Clean Air Act requires EPA to establish national emission standards for hazardous air pollutants at a level that "provides an ample margin of safety to protect the public health." 42 U.S.C. § 7412(b)(1)(B). If anything, this language would appear to be less qualified and more singleminded in its focus on health protection than the language of Sections 3(8) and 6(b)(5) of the OSH Act. Yet EPA has stated that Section 112 was not intended to require "the complete elimination of all risks," but rather permits the agency to "consider other social and economic factors [including the cost of reducing the risks further] in determining whether an ample margin of safety is provided by a given control level." 44 Fed. Reg. at 58661, col. 1. Other agencies, including the Food and Drug Administration and the Consumer Product Safety Commission, also utilize risk estimation procedures to guide their regulatory decisions.[92]

OSHA itself performs cost and benefit assessments. As noted in *Benzene*, 48 U.S.L.W. at 5031, OSHA engages in cost-benefit analysis in determining priorities for regulation under Section 6(b)(5), an exercise that OSHA believes is essential to ensure that it allocates its resources in a reasonable and efficient manner.[93] If such an analysis is appropriate in order to ensure that OSHA's resources are not misallocated, its use surely is vital to

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were divided, but two Commissioners agreed to remand the case for further proceedings consistent with *Continental Can*. *See id.* at 30045 (Commissioner Barnako); *id.* at 30046 (Chairman Cleary).

[92] For example, under Section 406 of the Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 346 (1976), FDA conducted a risk assessment to assist it in setting a tolerance level for aflatoxin in consumer peanut products, 43 Fed. Reg. 8808 (1978), and the Consumer Product Safety Commission developed a quantitative risk estimate for benzene in connection with its proceedings for regulating that substance. 43 Fed. Reg. 21838, 21845 (1978).

[93] *See also National Congress of Hispanic Am. Citizens v. Marshall*, 626 F.2d 882 (D.C. Cir. 1979).

ensure that the much greater societal resources committed under OSHA standards are not misallocated. Moreover, eleven months after the Standard was promulgated, OSHA prepared and submitted to Congress a lengthy and detailed cost-effectiveness/cost-benefit analysis for the Cotton Dust Standard itself.[94]

As can be seen from the foregoing discussion, the "experience gained under the [OSH Act] and other health and safety laws," 29 U.S.C. § 655(b)(5), further confirms the importance and usefulness of performing a responsible cost and benefit assessment in the setting of occupational health standards.[95] Because OSHA failed to perform such an assessment here, it could not determine that the Cotton Dust Standard is reasonably necessary or appropriate to achieve a reduction in risk that is significant in light of its enormous costs. The failure of the court below to require OSHA to perform such an assessment and to make such a determination requires reversal.

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[94] The Report was not part of the rulemaking proceeding, was not submitted for industry comment, was not before the court of appeals, and, as OSHA acknowledges, "does not reflect the decision-making process used to promulgate the final standard." Department of Labor Report to the Congress, *Cotton Dust: Review of Alternative Technical Standards and Control Technologies*, at v (May 14, 1979) [hereinafter "Cotton Dust Report to Congress"]. Accordingly, the Report cannot be relied upon by OSHA to support the Cotton Dust Standard. While ATMI does not agree with many of the assumptions employed, the methods followed, or the conclusions reached in the Report, the Report still demonstrates that OSHA can do a better job of assessing costs, benefits and available alternatives than it did in the Cotton Dust proceeding.

[95] The usefulness of cost and benefit assessments in regulatory decisionmaking is discussed in an extensive literature. *See, e.g.*, National Academy of Sciences, *Decision Making for Regulating Chemicals in the Environment* 44-45 (1975); Kasper, *Cost-Benefit Analysis in Environmental Decisionmaking*, 45 Geo. Wash. L. Rev. 1013 (1977); Oi, *On the Economics of Industrial Safety*, 38 L. & Contemp. Prob. 669 (1974).

2. *The Judgment Below Must Be Reversed Because OSHA Did Not Show That the Standard Would Produce a Reduction in Risk That Is Significant in Light of Its Costs.*

Under the approach followed by OSHA and the court below, it was irrelevant that the Cotton Dust Standard might yield health protection benefits not significantly greater than those that could be realized from a much less costly standard. Consequently, OSHA did not assess the relative risk reduction benefits of its Standard and of the alternative proposed by ATMI, to see whether its more stringent (and far more costly) Standard was justified in light of the relative benefits and respective costs. For that reason, the judgment below must be reversed.

If the court below had imposed such a requirement, however, it could not reasonably have found that OSHA satisfied it here, since the agency never correctly identified the costs or the benefits of its Standard, let alone of the ATMI alternative. The critical flaws in OSHA's cost estimate already have been described at some length, *see* pages 24-30 *supra*, and need not be revisited. It will be useful, however, to comment briefly on the inadequacy (indeed, the virtual nonexistence) of OSHA's assessment of risk reduction benefits.

OSHA devoted only one page of the Standard's 45-page preamble to a discussion of benefits. 43 Fed. Reg. at 27378-79. That discussion reveals almost nothing about the risk reduction benefits that OSHA's Standard might be expected to produce in comparison to the ATMI alternative.[96]

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[96] In any event, it is analytically flawed. For example, OSHA arbitrarily raised the number of employees in yarn manufacturing by almost 60% from 126,000 to 200,000. No support was offered for this capricious rejection of figures taken directly from a United States Department of Labor survey. Ex. 6, No. 76 at III-1, 3, 23. Moreover, OSHA applied Merchant's predicted prevalence rate to

First, OSHA made no attempt to analyze the impact that a medical surveillance program (combined with selective respirator use and employee transfer in appropriate cases) would have on the development of byssinosis at any level of exposure. Yet OSHA acknowledged that a program of medical screening (combined with such administrative measures) is likely to have a significant impact in reducing the incidence of byssinosis among textile workers.[97] And the President's Council on Wage and Price Stability suggested that the benefits of a medical surveillance or respirator program might well be greater than the benefits that would be achieved by reducing permissible exposure levels through engineering dust controls.[98]

Second, OSHA made no attempt to differentiate between the various grades or symptoms of byssinosis in evaluating the potential benefits of its Standard. Since the court below did not decide that the nondisabling and reversible symptoms of byssinosis constitute "material impairment of health," Pet. App. at 52-53, 617 F.2d at 655, any reduction in the risk of developing this mild form of byssinosis should not be included as a potential health benefit within the meaning of the OSH Act. As noted by the Council on Wage and Price Stability, "if

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the entire yarn manufacturing industry, even though Merchant had acknowledged that his study cannot be used to draw inferences for the entire textile industry. *See* note 19 *supra*.

[97] *See* page 15 *supra*; 43 Fed. Reg. at 27359, col. 3; Cotton Dust Report to Congress 31, 49.

[98] Comments of the Council on Wage and Price Stability, Ex. 111 at 29. As the Council pointed out, medical screening combined with respirator use and employee transfer where appropriate "might provide more cost-effective solutions to the byssinosis problem." *Id.* at 30. For that reason, it urged OSHA to examine the "cost effectiveness of each provision [*i.e.*, dust control, medical surveillance, respirator use and employee transfer] . . . independently and in concert with the other provisions in order to ensure the most protection for the least cost." *Id.*

eliminating 'material impairment' and not occupational discomfort is OSHA's main concern, then standard development should focus on the irreversible harmful health effects." [99]

Even if prevention of the mild, low-grade symptoms of byssinosis were a cognizable health benefit under the Act, however, it surely is a much less significant benefit than the prevention of chronic and disabling byssinosis. As the Council on Wage and Price Stability observed, any meaningful assessment of benefits must reflect these differences in the health impact of the different grades of byssinosis, for "a system that simply sums all degrees of health problems from the serious to the inconsequential omits important information and may be misleading." [100] Yet OSHA's offhand discussion of benefits treats all forms of byssinosis the same.

Thus, OSHA's discussion of benefits in the Cotton Dust proceeding is at best a formality that does not begin to approach the kind of careful and systematic assessment that would permit the agency to determine whether the Standard is likely to result in a significant reduction in risk as compared to ATMI's much less costly alternative.[101] Instead, OSHA treated cotton dust like a carcinogen, ignoring the fact that byssinosis, in its early

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[99] Comments of the Council on Wage and Price Stability, Ex. 111 at 15.

[100] *Id.* at 15, 27, 29. *Cf. National Congress of Hispanic Am. Citizens v. Marshall*, 626 F.2d 882, 889 (D.C. Cir. 1979) (approving the decision of OSHA to consider "the nature and severity of the hazardous exposure" as well as the number of employees to be benefited in setting priorities for the promulgation of occupational health and safety standards).

[101] *Cf. United Parcel Serv. of Ohio, Inc. v. OSHRC*, 570 F.2d 806, 812 (8th Cir. 1978) (overturning an order enforcing a safety standard because of the failure "to give consideration to less rigorous requirements" having less severe economic consequences).

stages is nondisabling and reversible and that a program of medical surveillance is likely to have a dramatic impact in reducing the number of serious cases of byssinosis that might otherwise occur.[102] As a result, the record in this case contains no supportable determination that the reduction in risk that might result from the Cotton Dust Standard is significant when considered in light of the costs. For that reason, the judgment of the court below must be reversed.[103]

II. THE COURT BELOW ERRONEOUSLY CONCLUDED THAT OSHA HAS AUTHORITY TO REQUIRE EMPLOYERS TO MAINTAIN THE WAGES AND BENEFITS OF EMPLOYEES WHO ARE TRANSFERRED FOR REASONS UNRELATED TO HEALTH IMPAIRMENT.

Under the Standard, respirators must be provided and used in various circumstances—for example, during the period in which engineering controls are being installed or where such controls are not sufficient to reduce ex-

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[102] 43 Fed. Reg. at 27358-59; Comments of the Council on Wage and Price Stability, Ex. 111 at 6-7, 13, 15, 27, 29.

[103] In fact, OSHA did not even establish that textile workers would be exposed to a "significant risk of material health impairment" if the ATMI alternative were adopted. For that reason alone, the Cotton Dust Standard should be set aside, as the Benzene Standard was in similar circumstances.

The judgment below also should be reversed because, although ATMI "opposed on substantial grounds" the strict numerical limits adopted by OSHA and proposed a much less costly alternative, OSHA made no serious attempt to "explain and support" its rejection of the ATMI alternative in favor of the much more burdensome approach of the Standard. *Associated Indus. of New York State, Inc. v. Department of Labor*, 487 F.2d 342 (2d Cir. 1973); *cf. Synthetic Organic Chem. Mfrs. Ass'n v. Brennan*, 503 F.2d 1155, 1160 (3d Cir. 1974), *cert. denied*, 420 U.S. 973 (1975) (OSHA must consider presently available alternatives); *Industrial Union Dep't, AFL-CIO v. Hodgson*, 499 F.2d at 475 (OSHA must explain why it "chooses to follow one course rather than another").

posures below the applicable PEL.[104] Respirators also must be provided for use during various maintenance, repair and cleaning activities, or whenever an employee requests a respirator, whether or not the PEL is exceeded.

Pursuant to subsection (f) (2) (v) of the Standard, if a physician determines that an employee is unable to wear a respirator when the Standard requires its use, the employee must be given the opportunity to transfer to another position, having a dust level at or below the PEL, that is available or later becomes available.[105] Such transfers are to be made even though the employee shows no symptom of byssinosis and even though his inability to wear a respirator is not attributable to past employment. Moreover, employers must insure that an employee who is so transferred "suffers no loss of earnings or other employment rights or benefits as a result of the transfer." [106] This guarantee against any loss of earnings, rights or benefits appears to be subject to no limitation in terms of duration or otherwise.

The wage guarantee provision of the Cotton Dust Standard raises a relatively narrow question for review in this case: Whether OSHA has authority to require employers to maintain the earnings, benefits, and rights of employees who are transferred without any demonstration that they are suffering a work-related health impairment or even that their inability to wear respirators is related to exposure to cotton dust or other aspects of their employment.[107]

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[104] 29 C.F.R. § 1910.1043(f) (1979), Pet. App. at 6-9.

[105] 29 C.F.R. § 1910.1043(f)(2)(v) (1979), Pet. App. at 8-9.

[106] *Id.*

[107] On the facts of the present case, there is no need to address the separate question whether OSHA can impose a medical removal-wage retention requirement that is more specifically related to health impairment. This latter question is raised by OSHA's Lead

No one has suggested that the OSH Act contains an express grant of authority for the imposition of a wage guarantee provision,[108] and the court below did not pretend otherwise. The court did conclude, however, that the provision was impliedly authorized by Section 3(8) of the Act. *See* Pet. App. at 96, 617 F.2d at 674. The court reasoned that, in the absence of a wage guarantee provision, employees might "refrain from disclosing actual health impairments from the dust exposure," because they might be reluctant to risk "disadvantageous transfers, or even risk losing their jobs." Pet. App. at 97, 617 F. 2d at 674-75.

The court apparently misconceived the nature of the employee transfer-wage guarantee provision of the Cotton Dust Standard. Under the Standard, employee transfers are not made when the worker is found to have suffered "actual health impairments from the dust exposure." To the contrary, the fact that an employee has suffered actual health impairment from dust exposure does not entitle him to a transfer and wage guarantee.[109] A transfer is required only when an employee is found to be unable to wear a respirator, whether or not he exhibits any symptoms of even the mildest form of bys-

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Standard, 29 C.F.R. § 1910.1025(d), (j), (k) (1979), *as amended at* 44 Fed. Reg. 50338 (1979), *id.* at 60981, *id.* at 68828, which was at issue in *United Steelworkers of America, AFL-CIO-CLC v. Marshall*, [1980] OSH Dec. (CCH) 30329, 8 OSH Cas. (BNA) 1810 (D.C. Cir. Aug. 15, 1980). As OSHA recognized, the broader questions of mandatory medical removal and wage retention posed in the Lead Standard proceeding are not presented by the Cotton Dust Standard, 43 Fed. Reg. at 27387, col. 3, and the court below did not address those questions. *See* Pet. App. at 95-96 n.238, 617 F.2d at 674 n.238. Consequently, a decision regarding the wage guarantee provision of the Cotton Dust Standard would not necessarily be applicable to the substantially different medical removal-rate retention provision of the Lead Standard.

[108] *See* 43 Fed. Reg. at 52976.

[109] The fact that health impairment does not entitle a worker to the wage guarantee is consistent with OSHA's description of the

sinosis.[110] Thus, the court below appears to have upheld the validity of the Cotton Dust wage guarantee provision under a health impairment rationale that does not apply to the Standard.

In any event, reading Section 3(8) as an authorization for OSHA to impose the wage guarantee provision under the rationale advanced by the court below proves too much, for it would invest OSHA with virtually limitless authority to impose almost any imaginable requirement that is arguably related to promoting worker health. For example, employer-provided universal health insurance would presumably promote worker health, as would employer-sponsored food-stamp programs or retreats to health spas. Surely Congress did not intend to authorize OSHA to include such measures in its health standards; yet, it is difficult to distinguish them from a wage guarantee provision under the statutory authorization test laid down by the court.[111]

In short, the statutory construction espoused by the court below would permit an "uncanalized delegation of legislative power." *Benzene*, 48 U.S.L.W. at 5040 (Rehnquist, J., concurring). As the *Benzene* plurality observed, "[a] construction of the statute that avoids this kind of open-ended grant should certainly be favored." *Id.* at 5032 (plurality opinion). And here, as in that case, serious constitutional questions can be avoided by resort

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provision as aiming "to minimize any adverse *economic impact* on the employee by virtue of the inability to wear a respirator." 43 Fed. Reg. at 27387, col. 3 (emphasis added). Thus, the provision—which mandates a wage guarantee even without health impairment but does not assure such a guarantee where there is actual health impairment—cannot fairly be characterized as medically related.

[110] 29 C.F.R. § 1910.1043(f)(2)(v) (1979), Pet. App. at 8-9.

[111] *See also Taylor Diving & Salvage Co. v. Department of Labor*, 599 F.2d 622, 625 (5th Cir. 1979) (holding that Section 3(8) of the Act does not authorize OSHA to protect an employee's job security by limiting the medical fitness standards that an employer may impose as a qualification for continuing employment).

to legislative history that plainly limits the reach of what otherwise might be overbroad statutory language.

In the course of the debates on the OSH Act, the House of Representatives considered and rejected a provision that would have permitted a form of wage guarantee. Specifically, as this Court noted in *Whirlpool Corp. v. Marshall*, 445 U.S. 1 (1980), the Daniels bill as originally introduced permitted an employee to absent himself from the workplace at his own initiative if potentially toxic or harmful substances were present "without loss of regular compensation for such period." [112] The Senate bill contained no comparable "strike with pay" provision; nor did the bill as enacted. After canvassing this legislative history in *Whirlpool Corp. v. Marshall*, this Court observed that

> What primarily troubled Congress about the Daniels bill's "strike with pay" provision was *its requirement that employees be paid their regular salary after* . . . refus[ing] to work . . . . It is instructive that virtually every time the issue of an employee's right to absent himself from hazardous work was discussed in the legislative debates, *it was in the context of the employee's right to continue to receive his usual compensation.*

445 U.S. at 17-18 (emphasis added).[113] This same guaranteed right to receive pay irrespective of work performed is an integral feature of the wage guarantee scheme established in the Cotton Dust Standard. The rejection of the "strike with pay" provision of the Daniels bill makes clear that Congress did not intend to empower OSHA to impose such a requirement.[113]

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[112] H.R. 16785, 91st Cong., 2d Sess. § 19(a)(5) (1970), *reprinted in* Leg. Hist. at 969-70.

[113] Although the Court upheld the regulation at issue in *Whirlpool* (authorizing a worker to absent himself in good faith from a "hazardous condition" in the workplace), it stressed that the regulation in question did not "require employers to pay workers who refuse to perform their assigned tasks in the face of imminent danger." 445 U.S. at 19.

Furthermore, Congress passed the OSH Act barely a year after enacting the Federal Coal Mine Health and Safety Act of 1969. 30 U.S.C. §§ 801-960 (1976). The Coal Act contains language authorizing the responsible agency in general terms to act to promote the health and safety of miners. *See* 30 U.S.C. § 811(d). Yet Congress in the Coal Act also expressly created a right of guaranteed wage protection for miners transferred to less hazardous work because of pneumoconiosis.[114] Congress was thus fully aware of the possible importance of wage guarantees in promoting worker health and safety when it debated the Occupational Safety and Health Act the following year. Yet it chose not to include in the OSH Act the type of earnings protection requirement that only a year before it expressly had included in the Coal Act.[115] Against this legislative background, OSHA's attempt to imply such authority under the OSH Act must be rejected.[116]

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[114] In order to make sure that mine workers participated in the X-ray program made available to them, the Coal Act specifically provided that any miner who showed evidence of pneumoconiosis "shall be afforded the option of transferring" to other areas of the mine and "shall receive compensation for such work at not less than the regular rate of pay received by him immediately prior to his transfer." 30 U.S.C. § 843(b)(2), (3) (1976).

Even with respect to pneumoconiosis, neither the Coal Act of 1969 nor the Federal Mine Safety and Health Act of 1977 protects a transferred miner's seniority rights. *See, e.g.*, Section 201(a)(7), 30 U.S.C. § 811(a)(7) (Supp. III 1979). By contrast, the wage guarantee procedure under the Cotton Dust Standard purports to protect all worker "rights" and "benefits," presumably including seniority rights.

[115] Congress also included a wage guarantee provision in the Clean Air Act Amendments of 1977. *See* 42 U.S.C. § 7410(a)(6) (Supp. III 1979).

[116] *Cf. General Elec. Co. v. Southern Constr. Co.*, 383 F.2d 135, 138 n.4 (5th Cir. 1967), *cert. denied*, 390 U.S. 955 (1968).

CONCLUSION

For the reasons set forth above, the judgment of the court of appeals should be reversed and the case remanded with instructions to grant the petitions for review and vacate the Standard.

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APPENDIX

Article I, Section 1 of the United States Constitution provides in pertinent part:

> All legislative Powers herein granted shall be vested in a Congress of the United States . . . .

Section 2(b) of the OSH Act and paragraph (9) of that section, 29 U.S.C. § 651(b)(9) (1976), provide:

> The Congress declares it to be its purpose and policy, through the exercise of its powers to regulate commerce among the several States and with foreign nations and to provide for the general welfare, to assure so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resources—
>
> . . . .
>
> (9) by providing for the development and promulgation of occupational safety and health standards . . . .

Section 3(8) of the OSH Act, 29 U.S.C. § 652(8) (1976), provides:

> For the purposes of this chapter—
>
> (8) The term "occupational safety and health standard" means a standard which requires conditions, or the adoption or use of one or more practices, means, methods, operations, or processes, reasonably necessary or appropriate to provide safe or healthful employment and places of employment.

Section 6 of the OSH Act, 29 U.S.C. § 655 (1976), contains the following pertinent provisions:

(a) Promulgation by Secretary of national consensus standards and established Federal standards; time for promulgation; conflicting standards

Without regard to chapter 5 of title 5 or to the other subsections of this section, the Secretary shall, as soon as practicable during the period beginning with the effective date of this chapter and ending two years after such date, by rule promulgate as an occupational safety or health standard any national consensus standard, and any established Federal standard, unless he determines that the promulgation of such a standard would not result in improved safety or health for specifically designated employees. In the event of conflict among any such standards, the Secretary shall promulgate the standard which assures the greatest protection of the safety or health of the affected employees.

(b) Procedure for promulgation, modification, or revocation of standards

The Secretary may by rule promulgate, modify, or revoke any occupational safety or health standard in the following manner:

. . . .

(5) The Secretary, in promulgating standards dealing with toxic materials or harmful physical agents under this subsection, shall set the standard which most adequately assures, to the extent feasible, on the basis of the best available evidence, that no employee will suffer material impairment of health or functional capacity even if such employee has regular exposure to the hazard dealt with by such standard for the period of his working life. Development of standards under this subsection shall be based upon research, demonstrations, experiments, and such other information as may be appropriate. In addition to the attainment of the highest degree

of health and safety protection for the employee, other considerations shall be the latest available scientific data in the field, the feasibility of the standards, and experience gained under this and other health and safety laws. Whenever practicable, the standard promulgated shall be expressed in terms of objective criteria and of the performance desired.

. . . .

(f) Judicial review

Any person who may be adversely affected by a standard issued under this section may at any time prior to the sixtieth day after such standard is promulgated file a petition challenging the validity of such standard with the United States court of appeals for the circuit wherein such person resides or has his principal place of business, for a judicial review of such standard. A copy of the petition shall be forthwith transmitted by the clerk of the court to the Secretary. The filing of such petition shall not, unless otherwise ordered by the court, operate as a stay of the standard. The determinations of the Secretary shall be conclusive if supported by substantial evidence in the record considered as a whole.